APPENDIX H

Non-Water Point Data Sheets
Part 1 of 3

Project/Site: Line 5 Relocation Project	ect City/C	County: Ashland	Sar	mpling Date: <u>2019-10-17</u>	
Applicant/Owner: Enbridge					
Investigator(s): BRG/DGL	Section	on, Township, Range: 0	44N-003W-12		
Landform (hillslope, terrace, etc.): Side slo	DE Local rel	lief (concave, convex, nor	ne): Concave	Slope (%): 0-2%	
Subregion (LRR or MLRA): Northcentral Fore					
Soil Map Unit Name: Gogebic-Metonga-Rocl					
Are climatic / hydrologic conditions on the site t					
Are Vegetation, Soil, or Hydrold					
Are Vegetation, Soil, or Hydrold					
SUMMARY OF FINDINGS – Attach	site map showing san	npling point location	ons, transects, im	portant features, etc.	
	s No	Is the Sampled Area			
Hydric Soil Present? Yes	s No <u> /</u>	within a Wetland?	Yes	No <u>~</u>	
Wetland Hydrology Present? Yes Remarks: (Explain alternative procedures he	S No	If yes, optional Wetland	d Site ID:		
HYDROLOGY					
Wetland Hydrology Indicators:			Secondary Indicators	(minimum of two required)	
Primary Indicators (minimum of one is require	ed: check all that apply)		Surface Soil Crac		
Surface Water (A1)	Water-Stained Leave		Drainage Patterns (B10)		
High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim Lines (B16)		
Saturation (A3)	Marl Deposits (B15)		Dry-Season Water Table (C2)		
Water Marks (B1)	Hydrogen Sulfide Od		Crayfish Burrows (C8)		
Sediment Deposits (B2)		= : :	Saturation Visible on Aerial Imagery (C9)		
Drift Deposits (B3)	Presence of Reduced		Stunted or Stress		
Algal Mat or Crust (B4) Iron Deposits (B5)	Recent Iron Reduction Thin Muck Surface (0		Geomorphic PosiShallow Aquitard		
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)		,	Shallow Aquitard Microtopographic		
Sparsely Vegetated Concave Surface (Bi		ilaino,	FAC-Neutral Test		
Field Observations:				. (20,	
Surface Water Present? Yes N	o Depth (inches):				
Water Table Present? Yes N	o Depth (inches):				
	o Depth (inches):	Wetland H	lydrology Present?	Yes No	
(includes capillary fringe) Describe Recorded Data (stream gauge, mor	nitoring well, aerial photos, pre	vious inspections), if ava	ailable:		
55.		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	inde.s.		
Remarks: No indicators of wetland hydro	logy were observed				
The managers of menants my and	109, 110.0 02.22.12	•			

Tree Stratum (Plot size: 30')	Absolute	Dominant Species?	Indicator	Dominance Test worksheet:
1. Populus tremuloides			FAC	Number of Dominant Species
2. Acer saccharum		N	FACU	That Are OBL, FACW, or FAC:4 (A)
3. <u>Fraxinus americana</u>		N N	FACU	Total Number of Dominant Species Across All Strata: 10 (B)
				` ` '
4. <u>Prunus serotina</u>			<u>FACU</u>	Percent of Dominant Species That Are OBL, FACW, or FAC: 40.00 (A/B)
5				10.00 (10)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	70.0	= Total Co	ver	OBL species 0 x 1 = 0
Sapling/Shrub Stratum (Plot size: 15')				FACW species 0 x 2 = 0
1. Corylus cornuta				FAC species x 3 = 225 FACU species 92 x 4 = 368
2. <u>Populus tremuloides</u>	10.0	<u>Y</u>	<u>FAC</u>	UPL species 0 x5 = 0
3. Fraxinus americana	_10.0_	Y	<u>FACU</u>	Column Totals: <u>167</u> (A) <u>593</u> (B)
4. <u>Tilia americana</u>	5.0	N	<u>FACU</u>	
5. Rhamnus cathartica	5.0	N	FAC	Prevalence Index = B/A = 3.55
6. Acer saccharum	5.0	N	<u>FACU</u>	Hydrophytic Vegetation Indicators:
7. <u>Prunus serotina</u>	5.0	N	<u>FACU</u>	1 - Rapid Test for Hydrophytic Vegetation
	_60	= Total Co	ver	2 - Dominance Test is >50%
Herb Stratum (Plot size: 5')				3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting
1. Prunus serotina	10.0	Y	<u>FACU</u>	data in Remarks or on a separate sheet)
2. Pyrola elliptica	5.0	Y	<u>FACU</u>	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Athyrium angustum	5.0	Y	FAC	The street are of the state and the street has the street are street.
4. Tilia americana		Y	<u>FACU</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. Populus tremuloides	5.0	Y	FAC	Definitions of Vegetation Strata:
6. <u>Acer saccharum</u>		Y	<u>FACU</u>	
7. Agrimonia striata		N	<u>FACU</u>	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8.				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11.				of size, and woody plants less than 3.28 ft tall.
12.				Woody vines – All woody vines greater than 3.28 ft in
		= Total Co	ver	height.
Woody Vine Stratum (Plot size:30')		- 10tai 00	• • • • • • • • • • • • • • • • • • • •	
1				
2				
3				Hydrophytic Vegetation
4				Present? Yes No ✓
Remarks: (Include photo numbers here or on a separate		= Total Co	ver	
The area is a young stand of trees dom		oy clona	al Populi	us tremuloides.
, 0		,	•	

Sampling Point: noasa025

SOIL Sampling Point: <u>noasa025</u>

Profile Desc	cription: (De	scribe 1	to the dep	th needed to docur	nent the i	indicator	or confirm	the absence of ind	licators.)
Depth		Matrix	0/	Color (moist)	x Feature		1 2	Tautuna	Remarks
(inches) 0-4	Color (m. 7.5YR		% 100	Color (moist)	<u> </u>	Type'	Loc ²	Texture SIL	Remarks
	•		100		-			VFSL	
4-20	5YR	4/3	100			· ——		VFSL	
						. ——			
					-				
					-	. ——			
Type: C=C Hydric Soil		D=Depl	letion, RM=	Reduced Matrix, MS	S=Masked	d Sand Gra	ains.		Pore Lining, M=Matrix. oblematic Hydric Soils³:
Histosol				Polyvalue Belov	w Surface	(S8) (LRF	RR,		A10) (LRR K, L, MLRA 149B)
Histic E	pipedon (A2)			MLRA 149B)			Coast Prairie	Redox (A16) (LRR K, L, R)
	istic (A3) en Sulfide (A4	1)		Thin Dark Surfa Loamy Mucky N					Peat or Peat (S3) (LRR K, L, R) e (S7) (LRR K, L)
	d Layers (A5)			Loamy Gleyed			, L)		elow Surface (S8) (LRR K, L)
	d Below Dark		e (A11)	Depleted Matrix					urface (S9) (LRR K, L)
	ark Surface (<i>A</i> Mucky Mineral			Redox Dark Su Depleted Dark				-	ese Masses (F12) (LRR K, L, R) podplain Soils (F19) (MLRA 149B)
-	Gleyed Matrix			Redox Depress		')			c (TA6) (MLRA 144A, 145, 149B)
-	Redox (S5)								Material (F21)
	d Matrix (S6) Irface (S7) (Ll	RR R, N	ILRA 149E	3)					r Dark Surface (TF12) in in Remarks)
		-		tland hydrology mus	st be prese	ent, unless	s disturbed	or problematic.	
	Layer (if obs	erved):							
Type:				<u> </u>				Uvdrio Soil Bross	ent? Yes No <u>/</u> _
Depth (in Remarks:	ches):							nyunc son Frese	int: res NO
	c soil indi	icator	s obse	rved.					



noasa025_E



noasa025_W

Project/Site: Line 5 Reloc	cation Project	City/0	County: Ashland		Sampling Date: <u>2019-09-06</u>		
	•				_ Sampling Point: <u>noasa026</u>		
Investigator(s): NTT/DGL							
					Slope (%): <u>0-2%</u>		
					Datum: WGS84		
					ition:		
Are climatic / hydrologic conditi							
					esent? Yes <u>/</u> No		
_		-					
Are Vegetation, Soil							
SUMMARY OF FINDING	S – Attach sit	e map showing sar	npling point loca	ations, transects,	important features, etc.		
Hydrophytic Vegetation Prese	ent? Yes	No	Is the Sampled Ar	ea			
Hydric Soil Present?		No 🔽	within a Wetland?	Yes	No <u></u>		
Wetland Hydrology Present?	Yes	No <u></u>	If yes, optional Wet	tland Site ID:			
Remarks: (Explain alternative	e procedures here c	or in a separate report.)					
This is a linear swale	•	-		_	-		
due to ATV use and	not yet exnic	oiting nyaric soils.	Sample collec	ctea for aue alliq	gence purposes.		
HYDROLOGY							
Wetland Hydrology Indicate	ors:			Secondary Indicat	ors (minimum of two required)		
Primary Indicators (minimum		check all that apply)		· ·			
Surface Water (A1)	or one is required, c	Water-Stained Leave		Drainage Patterns (B10)			
High Water Table (A2)		Aquatic Fauna (B13)		Moss Trim Lines (B16)			
Saturation (A3)		Marl Deposits (B15)			/ater Table (C2)		
Water Marks (B1)		Hydrogen Sulfide Od		Crayfish Burro			
Sediment Deposits (B2)				-	ible on Aerial Imagery (C9)		
Drift Deposits (B3)		Presence of Reduce	d Iron (C4)	Stunted or Str	essed Plants (D1)		
Algal Mat or Crust (B4)		Recent Iron Reduction	on in Tilled Soils (C6)	Geomorphic F	Position (D2)		
Iron Deposits (B5)		Thin Muck Surface (C7)	Shallow Aquit	ard (D3)		
Inundation Visible on Aer	ial Imagery (B7)	Other (Explain in Re	marks)	Microtopograp	phic Relief (D4)		
Sparsely Vegetated Cond	cave Surface (B8)			FAC-Neutral	Test (D5)		
Field Observations:							
Surface Water Present?		✓ Depth (inches):					
Water Table Present?		✓ Depth (inches):					
Saturation Present? (includes capillary fringe)	Yes No _	✓ Depth (inches):	Wetlai	nd Hydrology Present	? Yes No <u>/</u>		
Describe Recorded Data (stre	am gauge, monitor	ring well, aerial photos, pro	evious inspections), if	available:			
,							
Remarks: Slight depression, b	ut no notices	hle evidence of w	etland hydrole	any			
oligiti depression, b	ut no noticea	DIE EVIGETICE OF W	reliand hydroic	ogy.			

VEGETATION – Use scientific names of plants.

T. O (D	Absolute		t Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:30')			Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:(A)
2				Total Number of Dominant
3				Species Across All Strata:1 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	0.0	= Total Co	over	OBL species5 x 1 =5
Sapling/Shrub Stratum (Plot size:)				FACW species5 x 2 =10
1.				FAC species x 3 = 60
2				FACU species <u>37.5</u> x 4 = <u>150</u>
3				UPL species 0 x 5 = 0
4.				Column Totals: <u>67.5</u> (A) <u>225</u> (B)
5				Prevalence Index = B/A = 3.33
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
		= Total Co		2 - Dominance Test is >50%
Harb Stratum (Plat size: 5')		= 10(a) 00)VEI	3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size: 5') 1. Carex gracillima	37.5	Υ	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Symphyotrichum lateriflorum		N	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
3. <u>Carex crinita</u>		NI	OBL	
	_	N	FACW	¹Indicators of hydric soil and wetland hydrology must
<u> </u>		N	FAC	be present, unless disturbed or problematic.
5. Athyrium angustum				Definitions of Vegetation Strata:
6. <u>Carex pedunculata</u>			_FAC_	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9			·	and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11				
12				Woody vines – All woody vines greater than 3.28 ft in height.
	<u>67.5</u>	= Total Co	over	no.gra.
Woody Vine Stratum (Plot size:)				
1		_		
2				
3	_			Hydrophytic
4				Vegetation
	0.0	= Total Co	over	Tresent: Tes No
Remarks: (Include photo numbers here or on a separate None of the hydrophytic vegetation ind		net. Do	minated	by Carex gracillima.

Sampling Point: noasa026

SOIL Sampling Point: <u>noasa026</u>

Profile Des	cription: (Describe	to the dept	h needed to docur	nent the i	ndicator	or confirm	the absence of indicators.)	-
Depth	Matrix			x Feature		1 2	Texture Remarks	
(inches) 0-4	Color (moist) 10YR 2/2	100	Color (moist)	%	Type'	Loc ²	Texture Remarks SICL	
4-20	7.5YR 4/4	100		· 			FSL	
		"						
	_	·		-				
							·	
	-			· <u></u>				
¹ Type: C=C Hydric Soil	oncentration, D=Dep	letion, RM=	Reduced Matrix, MS	S=Masked	Sand Gr	ains.	² Location: PL=Pore Lining, M=Ma Indicators for Problematic Hydric	
Histoso			Polyvalue Belov	w Surface	(S8) (LR	RR.	2 cm Muck (A10) (LRR K, L, M	
	pipedon (A2)	•	MLRA 149B))			Coast Prairie Redox (A16) (LRF	R K, L, R)
	istic (A3) en Sulfide (A4)		Thin Dark Surfa Loamy Mucky N				5 cm Mucky Peat or Peat (S3) (Dark Surface (S7) (LRR K, L)	LRR K, L, R)
	d Layers (A5)		Loamy Gleyed			, L)	Polyvalue Below Surface (S8) (LRR K, L)
	d Below Dark Surface	e (A11)	Depleted Matrix				Thin Dark Surface (S9) (LRR K	
	ark Surface (A12) Mucky Mineral (S1)	•	Redox Dark Su Depleted Dark \$				Iron-Manganese Masses (F12)Piedmont Floodplain Soils (F19	
	Gleyed Matrix (S4)	•	Redox Depress		')		Mesic Spodic (TA6) (MLRA 144	
	Redox (S5)						Red Parent Material (F21)	
	d Matrix (S6) urface (S7) (LRR R, N	ILRA 149B)				Very Shallow Dark Surface (TF- Other (Explain in Remarks)	12)
	of hydrophytic vegetat		tland hydrology mus	st be prese	ent, unless	disturbed	or problematic.	
	Layer (if observed):							
Type:							Hydric Soil Present? Yes	No 🗸
Depth (in Remarks:	ches):						nyunc son Fresent: Tes	
	hly compacted	d due to	ATV activity.					



noasa026_E



noasa026_S

Project/Site: Line 5 Relocation Project		City/County: /	Ashland	Sampling Date: 25-Sep-19
Applicant/Owner: Enbridge		-	State: WI	Sampling Point: noasw001
Investigator(s): ES/AS		Section, Tov	nship, Range:	s. 23 t. 45N R. 2W
Landform (hillslope, terrace, etc.): Flat		Local relief (con	cave, convex, n	one): undulating
Subregion (LRR or MLRA): LRR K	Lat.: 4	46.36942789	Long	.: -90.57479428
Soil Map Unit Name: Gogebic silt loam, 2 to				NWI classification: PFO1Bq
			● No ○	
Are climatic/hydrologic conditions on the si		cui.		(If no, explain in Remarks.)
Are Vegetation $\;$	drology significantl	y disturbed?	Are "Normal	Circumstances" present? Yes No
Are Vegetation $\ \square$, Soil $\ \square$, or Hy	drology 🗌 naturally p	roblematic?	(If needed, e	explain any answers in Remarks.)
Summary of Findings - Attach	site map showing s	ampling po	int location	ns, transects, important features, et
Hydrophytic Vegetation Present? Yes				
Hydric Soil Present? Yes			Sampled Area a Wetland?	Yes ○ No •
Wetland Hydrology Present? Yes	● No ○			
Remarks: (Explain alternative procedures	here or in a separate repo	rt.)		
Hydrology				
Wetland Hydrology Indicators:				_Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one requ	ired; check all that apply)			Surface Soil Cracks (B6)
Surface Water (A1)	✓ Water-Stained Lea	ives (B9)		Drainage Patterns (B10)
☐ High Water Table (A2)	Aquatic Fauna (B1	.3)		Moss Trim Lines (B16)
Saturation (A3)	☐ Marl Deposits (B15	5)		Dry Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide	Odor (C1)		Crayfish Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizosph		Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift deposits (B3)	Presence of Reduc	` ,		Stunted or Stressed Plants (D1)
☐ Algal Mat or Crust (B4)☐ Iron Deposits (B5)	Recent Iron Reduc		(C6)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	☐ Thin Muck Surface	• ,		
Sparsely Vegetated Concave Surface (B8)	Other (Explain in F	Remarks)		FAC-neutral Test (D5)
Field Observations:				
Surface Water Present? Yes No	Depth (inches):			
Water Table Present? Yes O No	Depth (inches):			
Saturation Present? (includes applications) Yes No	- op a ().		Wetland Hyd	rology Present? Yes 💿 No 🔾
Describe Recorded Data (stream gauge, m		os, previous insp	ections), if avai	lable:
Remarks:				
Terrority.				

			ominant pecies?		Sampling Point: noasw001
Tree Stratum (Plot size: 30')	Absolute	R	el.Strat.	Indicator	Dominance Test worksheet:
Tree Structure	% Cover			Status	Number of Dominant Species
1. Tilia americana		✓	68.2%	FACU	That are OBL, FACW, or FAC: 2 (A)
2. Acer saccharum			22.7%	FACU	Total Number of Dominant
3. Fraxinus pennsylvanica			9.1%	FACW	Species Across All Strata:6(B)
4			0.0%		Percent of dominant Species
5		Ш	0.0%		That Are OBL, FACW, or FAC: 33.3% (A/B)
6			0.0%		, ,
7		Ш	0.0%		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15')	22=	= T	otal Cove	r	Total % Cover of: Multiply by:
1. Ulmus americana	5	П	7.1%	FACW	OBL species x 1 =
2. Ostrya virginiana	25	✓	50.0%	FACU	FACW species $9 \times 2 = 18$
3. Acer saccharum		~	42.9%	FACU	FAC species <u>27</u> x 3 = <u>81</u>
4		\Box	0.0%		FACU species $87 \times 4 = 348$
5		$\overline{\Box}$	0.0%		UPL species $0 \times 5 = 0$
6		\Box	0.0%		Column Totals: 123 (A) 447 (B)
7		\Box	0.0%		Prevalence Index = B/A = 3.634
		 = T	otal Cove		,
Herb Stratum (Plot size: 5')		,	otal cove	•	Hydrophytic Vegetation Indicators:
1. Dryopteris intermedia	12	~	38.7%	FAC	Rapid Test for Hydrophytic Vegetation
2. Carex pedunculata		~	48.4%	FAC	Dominance Test is > 50%
3. Elymus hystrix	_		6.5%	FACU	Prevalence Index is ≤3.0 ¹
4. Rubus pubescens			6.5%	FACW	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5			0.0%		Problematic Hydrophytic Vegetation 1 (Explain)
6			0.0%		Problematic Hydrophytic Vegetation (Explain)
7			0.0%		¹ Indicators of hydric soil and wetland hydrology must
8.			0.0%		be present, unless disturbed or problematic.
9			0.0%		Definitions of Vegetation Strata:
0			0.0%		Tree Moody plants 2 in (7.6 cm) or more in diameter
1			0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
2			0.0%		
		 = To	otal Cove	r	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall
Woody Vine Stratum (Plot size: 15')		-		-	greater than 5.26 it (1111) tall
1			0.0%		Herb - All herbaceous (non-woody) plants, regardless of
2			0.0%		size, and woody plants less than 3.28 ft tall.
3			0.0%		Woody vine - All woody vines greater than 3.28 ft in
4			0.0%		height.
	0	= Te	otal Cove	r	
		= 10	otal Cove	r	
					Hydrophytic Vegetation Present? Yes No No

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FW

Soil Sampling Point: noasw001

Profile Descr	iption: (De:	scribe to	the depti	needed to	documer	nt the indi	icator or c	onfirm the	e absence of indicators.)				
Depth		Matrix		Redox Features									
(inches)	Color (%	Color (moist)	%	Type ¹	Loc2	Texture Remarks				
0-3	10YR	3/2	100						Silty Clay Loam				
3-10	10YR	3/2	38	7.5YR	4/6	_ 2	C	PL	Silt Loam				
+mottle	7.5YR	4/3	60						Silt Loam				
10-20	7.5YR	4/4	98	7.5YR	4/6	2	C	PL	Silt Loam				
						_	_						
			-	•	-	-	-						
			_										
		-	_										
				-				-					
1 Type: C=Con	contration D	Donlotic	n DM-Do	ducad Matrix	CS-Covo	rod or Coa	tod Sand G	rains 21 or	cation: PL=Pore Lining. M=Matrix				
Hydric Soil I		-Depletit	JII. KI ^M I-KE	uuceu Matrix,	C3=C0VE	red or Coa	teu Sanu G	iraliis -Luc					
Histosol (/				Poly	zalue Belo	w Surface	(S8) (LRR	R	Indicators for Problematic Hydric Soils: 3				
☐ Histosol (A1) ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)							2 cm Muck (A10) (LRR K, L, MLRA 149B)						
	Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B)						RA 149B)	Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)					
Hydrogen	Sulfide (A4)								Dark Surface (S7) (LRR K, L, M)				
	Layers (A5) Loamy Gleyed Matrix (F2)							Polyvalue Below Surface (S8) (LRR K, L)					
	Depleted Below Dark Surface (A11) Depleted Matrix (F3) Pedox Dark Surface (F6)							☐ Thin Dark Surface (S9) (LRR K, L)					
	☐ Thick Dark Surface (A12) ☐ Redox Dark Surface (F6) ☐ Depleted Dark Surface (F7)							☐ Iron-Manganese Masses (F12) (LRR K, L, R)					
_ '	ck Mineral (S eyed Matrix (•				sions (F8)	- ,		Piedmont Floodplain Soils (F19) (MLRA 149B)				
Sandy Red	-	JT)			•				Mesic Spodic (TA6) (MLRA 144A, 145, 149B)				
	Matrix (S6)								☐ Red Parent Material (F21) ☐ Very Shallow Dark Surface (TF12)				
☐ Dark Surfa	ace (S7) (LR	R R, MLR	A 149B)						Other (Explain in Remarks)				
³ Indicators of	hydrophytic	vegetatio	on and wet	land hydrolog	y must be	present, u	ınless distu	rbed or prol					
Restrictive La													
Type:													
Depth (incl	hes):								Hydric Soil Present? Yes ○ No ●				
Remarks:													





Photo File: ArcGISApp_15 Orientation: -facing

Lat/Long or UTM: Long/Easting: Lat/Northing:

Description:



Photo File: **DSCN7554.JPG** Orientation: -facing

Lat/Long or UTM: Long/Easting: Lat/Northing:

Description:

Project/Site: Line 5 Relo	cation Projec	ct	City/C	County: Ash	nland	s	ampling Date: 2	2019-10-17	
Applicant/Owner: Enbridge	-								
Investigator(s): BRG/JSW									
Landform (hillslope, terrace, et									
Subregion (LRR or MLRA): No									
Soil Map Unit Name: Goget									
Are climatic / hydrologic condit		•	•	•		•	_	-	
Are Vegetation, Soil								No	
Are Vegetation, Soil	-		-					110	
_									
SUMMARY OF FINDING	3S – Attach s	ite n	nap showing san	npling poi	nt locatio	ns, transects, i	mportant fea	itures, etc.	
Hydrophytic Vegetation Pres	ent? Yes		No	Is the Sam					
Hydric Soil Present?			No 🔽	within a W	etland?	Yes	No <u> </u>		
Wetland Hydrology Present?			No	If yes, optio	nal Wetland	Site ID:			
Remarks: (Explain alternative The area is an uplain alternative The area is an uplain the area is a uplain the				nolygon	No indi	cators of wot	and hydrol	any aro	
present.	ild lolest with	11111	a mapped MM	polygon	. No man	cators or weti	and hydron	Jy ale	
present.									
HYDROLOGY									
Wetland Hydrology Indicate	ors:				<u>;</u>	Secondary Indicato	rs (minimum of tv	wo required)	
Primary Indicators (minimum	of one is required:	; chec	k all that apply)			· , ,			
Surface Water (A1)			Water-Stained Leave			Drainage Patterns (B10)			
High Water Table (A2)			Aquatic Fauna (B13)		-	Moss Trim Line			
Saturation (A3)			Marl Deposits (B15)	(0.1)	-	Dry-Season Wa			
Water Marks (B1)			Hydrogen Sulfide Od		·-	Crayfish Burrov		(00)	
Sediment Deposits (B2)			Oxidized Rhizospher	_		Saturation Visit			
Drift Deposits (B3)			Presence of Reduced Recent Iron Reduction			Stunted or Stre			
Algal Mat or Crust (B4) Iron Deposits (B5)			Thin Muck Surface (Geomorphic PoShallow Aquita			
Inundation Visible on Ae	rial Imagery (B7)		Other (Explain in Rer	•		Shallow Aquita Microtopograph			
Sparsely Vegetated Con			Other (Explain in Itel	nano,	-	FAC-Neutral Te			
Field Observations:	loavo carraco (20)				<u> </u>		561 (20)		
Surface Water Present?	Yes No	~	_ Depth (inches):						
Water Table Present?			Depth (inches):						
Saturation Present?	Yes No	~	Depth (inches):		Wetland Hy	ydrology Present?	Yes	No <u> </u>	
(includes capillary fringe) Describe Recorded Data (str	oom gougo monit		wall aprial photos pro	vieve inened	tiona) if avail	labla			
Describe Recorded Data (Str	eam gauge, monito	oning v	weii, aeriai priotos, pre	vious irispeci	lions), ii avaii	able.			
Remarks:									
No indicators of wet	tland hydrold	gy v	were observed						

Tree Stratum (Plot size:30')	Absolute % Cover		t Indicator Status	Dominance Test worksheet:
1. <u>Tilia americana</u>	30.0		FACU	Number of Dominant Species
Acer rubrum			FAC	That Are OBL, FACW, or FAC:(A)
3. <u>Populus tremuloides</u>			FAC	Total Number of Dominant Species Across All Strata: 4.0 (B)
•				(,
4				Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0 (A/B)
5				
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	/0.0	= Total Co	ver	OBL species 0.0 x1 = 0.0
Sapling/Shrub Stratum (Plot size: 15')				FACW species 12.0 x 2 = 24.0 FAC species 80.0 x 3 = 240.0
1. Corylus cornuta				FACU species 95.0 x 4 = 380.0
2. <u>Fraxinus pennsylvanica</u>	5.0	N	<u>FACW</u>	UPL species x5 =
3. Quercus rubra	5.0	N	<u>FACU</u>	Column Totals: <u>187.0</u> (A) <u>644.0</u> (B)
4				
5			<u> </u>	Prevalence Index = B/A = 3.4
6			·	Hydrophytic Vegetation Indicators:
7			<u> </u>	1 - Rapid Test for Hydrophytic Vegetation
	50.0	= Total Co	ver	2 - Dominance Test is >50%
Herb Stratum (Plot size:)				3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting
1. Carex pedunculata	40.0	<u>Y</u>	FAC	data in Remarks or on a separate sheet)
2. Pyrola elliptica	10.0_	N	<u>FACU</u>	Problematic Hydrophytic Vegetation ¹ (Explain)
3. <u>Mitchella repens</u>	5.0	N	<u>FACU</u>	Indicators of hydric call and watland hydrology must
4. Thalictrum dasycarpum	5.0	N	<u>FACW</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. Prunus serotina	5.0	N	<u>FACU</u>	Definitions of Vegetation Strata:
6. <u>Rubus pubescens</u>	2.0	N	<u>FACW</u>	_
7				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11.		_		of size, and woody plants less than 3.28 ft tall.
12		_		Woody vines – All woody vines greater than 3.28 ft in
	67.0	= Total Co	ver	height.
Woody Vine Stratum (Plot size:)				
1.			<u> </u>	
2				
3				Hydrophytic
4.				Vegetation
		= Total Co	ver	Present? Yes No ✓
Remarks: (Include photo numbers here or on a separate	sheet.)			
The area is an upland forest dominated	d by Tilia	a ameri	cana, Ac	cer rubrum, and Corylus cornuta.

Sampling Point: noasa024

SOIL Sampling Point: <u>noasa024</u>

				or commi	the absence of inc	dicators.)
ix						
	Color (moist)			Loc	Texture	Remarks
Depletion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	nins.		Pore Lining, M=Matrix.
n) 1) 1) R, MLRA 149E getation and we	MLRA 149B) Thin Dark Surfa Loamy Mucky M Loamy Gleyed I Depleted Matrix Redox Dark Sur Depleted Dark Sur Redox Depress	ce (S9) (L Mineral (F1 Matrix (F2) (F3) rface (F6) Surface (F ions (F8)	RR R, ML) (LRR K,	.RA 149B) L)	Coast Prairie 5 cm Mucky Dark Surface Polyvalue Be Thin Dark St Iron-Mangar Piedmont Fle Mesic Spodi Red Parent I Very Shallov Other (Explain	A10) (LRR K, L, MLRA 149B) e Redox (A16) (LRR K, L, R) Peat or Peat (S3) (LRR K, L, R) e (S7) (LRR K, L) elow Surface (S8) (LRR K, L) urface (S9) (LRR K, L) nese Masses (F12) (LRR K, L, R) codplain Soils (F19) (MLRA 149B) c (TA6) (MLRA 144A, 145, 149B) Material (F21) v Dark Surface (TF12) in in Remarks)
	<u> </u>				Hydric Soil Prese	ent? Yes No_ <u>v_</u>
•	•	-	•			_
	inface (A11) P) R, MLRA 149E getation and we red):	Color (moist) Color	Color (moist) % Color (moist) % Depletion, RM=Reduced Matrix, MS=Masked Polyvalue Below Surface MLRA 149B) Thin Dark Surface (S9) (L Loamy Mucky Mineral (F1 Loamy Gleyed Matrix (F2) Inface (A11) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F6) Redox Depressions (F8) R, MLRA 149B) Getation and wetland hydrology must be preserved): ampled due to the proximity of	Color (moist) % Type¹ Color (moist) % Type² Color (moist) % Type²	Color (moist) % Type¹ Loc² Color (moist) % Type² Loca Loca Loca Loca Loca Loca Loca Loca	Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Polyvalue Below Surface (S8) (LRR R, L) Coast Prairie Loary Mucky Mineral (F1) (LRR K, L) Depleted Matrix (F2) Polyvalue Below Matrix (F2) Polyvalue Below Matrix (F3) Thin Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (F6) Iron-Mangar (F1) (LRR K, L) Polyvalue Below Matrix (F3) Thin Dark Surface (F6) Redox Dark Surface (F7) Piedmont File (P1) (P2) Redox Depressions (F8) Mesic Spodi Red Parent (P3) Coast Prairie (P4) Piedmont File (P4) Piedmont File (P5) Pi



noasa024_E



noasa024_W

Project/Site: Line 5 Relocation Project	City/County: A	shland	Sampling Date: 2019-09-12			
Applicant/Owner: Enbridge						
Investigator(s): BRG/JSW	Section, Towns	nip, Range: 046N-	004W-33			
Landform (hillslope, terrace, etc.): Depression						
Subregion (LRR or MLRA): Northcentral Forests Lat: 46.4						
Soil Map Unit Name: Sanborg-Badriver complex,						
Are climatic / hydrologic conditions on the site typical for this ti	•	•				
Are Vegetation, Soil, or Hydrology sign						
Are Vegetation, Soil, or Hydrology nat			any answers in Remarks.)			
SUMMARY OF FINDINGS – Attach site map sh	nowing sampling p	oint locations, ti	ansects, important features, etc.			
Hydrophytic Vegetation Present? Yes No _	✓ Is the Sa	ımpled Area				
Hydric Soil Present? Yes No		Wetland?	Yes No			
Wetland Hydrology Present? Yes No _		tional Wetland Site I):			
Remarks: (Explain alternative procedures here or in a separ The area is a swale located in a pasture. and it lacks sufficient indicators to be class	Various upland	•	esent throughout the feature,			
HYDROLOGY Wetland Hydrology Indicators:		Secon	dary Indicators (minimum of two required)			
Primary Indicators (minimum of one is required; check all that	it apply)		urface Soil Cracks (B6)			
	Stained Leaves (B9)		rainage Patterns (B10)			
	c Fauna (B13)		Moss Trim Lines (B16)			
	eposits (B15)	D	Dry-Season Water Table (C2)			
Water Marks (B1) Hydrog	gen Sulfide Odor (C1)	c	Crayfish Burrows (C8)			
	ed Rhizospheres on Livir					
	nce of Reduced Iron (C4)		Stunted or Stressed Plants (D1)			
	t Iron Reduction in Tilled					
	luck Surface (C7) (Explain in Remarks)		nallow Aquitard (D3) icrotopographic Relief (D4)			
Sparsely Vegetated Concave Surface (B8)	(Explain in Nomano)		AC-Neutral Test (D5)			
Field Observations:						
Surface Water Present? Yes No _ v _ Depth	(inches):	_				
Water Table Present? Yes No Depth						
Saturation Present? Yes No Depth	(inches):	Wetland Hydrolo	gy Present? Yes No/			
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aer	rial photos, provious insp	octions) if available:				
Describe Recorded Data (stream gauge, monitoring well, aer	nai priotos, previous irisp	ections), ii avaliable.				
Remarks:	. topographia pa	oitian haa na h	varalagia watlagat in diaatara			
The area is a linear swale, but aside from						
Water does not pool in the feature even a	arter rain events,	as the surrour	nding pasture does not			
provide sufficient runoff to facilitate this.						

VEGETATION – Use scientific names of plants

EGETATION – Use scientific names of plants.				Sampling Point: noasc003				
Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?		Dominance Test worksheet:				
1				Number of Dominant Species That Are OBL, FACW, or FAC: 1.0 (A)				
2				Total Number of Dominant Species Across All Strata: 3.0 (B)				
4				Percent of Dominant Species				
5				That Are OBL, FACW, or FAC: 33.3333333333333333333333333333333333				
6				Prevalence Index worksheet:				
7				Total % Cover of: Multiply by:				
	_0.0	= Total Co	ver	OBL species 20.0 x 1 = 20.0				
Sapling/Shrub Stratum (Plot size: 15')				FACW species 0.0 x 2 = 0.0				
1				FAC species 12.0 x 3 = 36.0				
2				FACU species <u>65.0</u> x 4 = <u>260.0</u>				
				UPL species <u>0.0</u> x 5 = <u>0.0</u>				
3				Column Totals: <u>97.0</u> (A) <u>316.0</u> (B)				
4				Prevalence Index = B/A =3.3				
6.				Hydrophytic Vegetation Indicators:				
7				1 - Rapid Test for Hydrophytic Vegetation				
		= Total Cov	· · ·	2 - Dominance Test is >50%				
Hart Charter (Plataines 5'	0.0	= Total Co	VEI	3 - Prevalence Index is ≤3.0 ¹				
Herb Stratum (Plot size: 5')	20.0	V		4 - Morphological Adaptations ¹ (Provide supporting				
1. Phleum pratense	30.0	<u> </u>	FACU	data in Remarks or on a separate sheet)				
2. <u>Trifolium pratense</u>		<u>Y</u>	<u>FACU</u>	Problematic Hydrophytic Vegetation ¹ (Explain)				
3. <u>Persicaria hydropiper</u>		<u>Y</u>	OBL	¹ Indicators of hydric soil and wetland hydrology must				
4. <u>Echinochloa crus-galli</u>		N	<u>FAC</u>	be present, unless disturbed or problematic.				
5. <u>Ambrosia artemisiifolia</u>	5.0	<u>N</u>	<u>FACU</u>	Definitions of Vegetation Strata:				
6. <u>Elymus repens</u>	5.0	N	<u>FACU</u>	Tree – Woody plants 3 in. (7.6 cm) or more in diameter				
7. <u>Setaria pumila</u>	2.0	N	<u>FAC</u>	at breast height (DBH), regardless of height.				
8				Sapling/shrub – Woody plants less than 3 in. DBH				
9				and greater than or equal to 3.28 ft (1 m) tall.				
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.				
11								
12				Woody vines – All woody vines greater than 3.28 ft in height.				
	97.0	= Total Co	ver	noigh.				
Woody Vine Stratum (Plot size:)								
1								
2								
3				Hydrophytic				
4				Vegetation				
		= Total Co	ver	Present? Yes No				
Remarks: (Include photo numbers here or on a separate		nasture	nlante	and advantageous annual hydrophytic				

The area is a swale dominated by both upland pasture plants and advantageous annual hydrophytic vegetation. This vegetation grows opportunistically in open patches, but the lack of persistent hydrophytic vegetation and the dominance of non-hydrophytic vegetation indicate that the area is not a wetland.

SOIL Sampling Point: <u>noasc003</u>

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)												
Depth	0-1/	Matrix					Tautura					
(inches)	Color (-	<u>%</u>	Color (moist)	%	Type'	Loc ²	<u>Texture</u>	Remarks			
0-20	<u>5YR</u>	4/4_	100					<u> </u>				
				_								
	•								_			
				_	· 							
					· 							
			etion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ains.		PL=Pore Lining, M=Matrix.			
Hydric Soil		:		Dobareko Belev	u Curtoso	(Co) (LDE	. D		or Problematic Hydric Soils ³ :			
Histosol Histic Er	(AT) pipedon (A2	2)		Polyvalue Belov MLRA 149B)		(S6) (LRF	κκ,		ck (A10) (LRR K, L, MLRA 149B) rairie Redox (A16) (LRR K, L, R)			
Black Hi		-,		Thin Dark Surfa		RR R, MI	RA 149B)		cky Peat or Peat (S3) (LRR K, L, R)			
	n Sulfide (A			Loamy Mucky N			, L)		face (S7) (LRR K, L)			
	d Layers (A d Below Da		Δ (Δ11)	Loamy Gleyed I Depleted Matrix)			e Below Surface (S8) (LRR K, L) k Surface (S9) (LRR K, L)			
	ark Surface		, (, (, 1, 1)	Redox Dark Su					iganese Masses (F12) (LRR K, L, R)			
Sandy M	lucky Mine	ral (S1)		Depleted Dark	Surface (F	7)		Piedmon	t Floodplain Soils (F19) (MLRA 149B)			
-	Bleyed Matr	ix (S4)		Redox Depress	ions (F8)				podic (TA6) (MLRA 144A, 145, 149B)			
-	tedox (S5) Matrix (S6	1						Red Parent Material (F21) Very Shallow Dark Surface (TF12)				
	rface (S7) (ILRA 149E	3)					xplain in Remarks)			
3												
Restrictive I		-	ion and we	tland hydrology mus	t be prese	ent, unless	disturbed	or problematic.				
Type:	Layer (II or	oci veaj.										
	ches):							Hydric Soil P	resent? Yes No			
Remarks:												
No hydrid	soil in	dicator	s were	observed with	nin the	profile						



noasc003_N



noasc003_S

Project/Site: Line 5 Relocation Project	City/County: Ash	land	Sampling Date: 2019-09-14			
Applicant/Owner: Enbridge						
Investigator(s): BRG/JSW	Section, Township,	Range: 045N-004W-0	03			
Landform (hillslope, terrace, etc.): Depression						
Subregion (LRR or MLRA): Northcentral Forests Lat: 46.4						
Soil Map Unit Name: Sanborg-Badriver complex,						
Are climatic / hydrologic conditions on the site typical for this tir	•					
Are Vegetation, Soil, or Hydrology sign						
Are Vegetation, Soil, or Hydrology natu		If needed, explain any answe				
SUMMARY OF FINDINGS – Attach site map sh	owing sampling poir	nt locations, transects	s, important features, etc.			
Hydrophytic Vegetation Present? Yes No _	✓ Is the Samp					
Hydric Soil Present? Yes No _	within a Wa	etland? Yes	No <u></u>			
Wetland Hydrology Present? Yes No _		nal Wetland Site ID:				
Remarks: (Explain alternative procedures here or in a separa The area is a swale located in a pasture, vegetation nor hydrology to be considered	but does not have	sufficient persisten	t hydrophytic			
HYDROLOGY Westland Hydrology Indicators:		Secondary India	ators (minimum of two required)			
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that	t apply)	Secondary indication Surface Soil				
	t арріу) Stained Leaves (B9)		Drainage Patterns (B10)			
	Fauna (B13)		Moss Trim Lines (B16)			
	eposits (B15)		Moss Till Ellies (B10) Dry-Season Water Table (C2)			
	en Sulfide Odor (C1)		Crayfish Burrows (C8)			
Sediment Deposits (B2) Oxidize	ed Rhizospheres on Living R	Roots (C3) Saturation V				
	ce of Reduced Iron (C4)	Stunted or Stressed Plants (D1)				
	Iron Reduction in Tilled Soi					
<u> </u>	uck Surface (C7)	Shallow Aquitard (D3)				
Inundation Visible on Aerial Imagery (B7) Other (I Sparsely Vegetated Concave Surface (B8)	Explain in Remarks)		aphic Relief (D4)			
Field Observations:		FAC-Neutra	Trest (D5)			
Surface Water Present? Yes No _v_ Depth	(inches):					
Water Table Present? Yes No _ ✓ Depth						
Saturation Present? Yes No _v Depth		Wetland Hydrology Preser	nt? Yes No <u>/</u> _			
(includes capillary fringe)						
Describe Recorded Data (stream gauge, monitoring well, aeri	ial photos, previous inspecti	ons), if available:				
Remarks:						
The area is a swale with wetland topogra	phy, but does not i	meet any other indi	cators of wetland			
hydrology.						

VEGETATION – Use scientific names of plants.

	Absolute		t Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)			Status_	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 0.0 (A)
2				Total Number of Dominant
3				Species Across All Strata:1.0 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6	<u> </u>			Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Co		OBL species 0.0 $\times 1 = 0.0$
Sapling/Shrub Stratum (Plot size:)				FACW species 11.0 x 2 = 22.0
1				FAC species <u>5.0</u> x 3 = <u>15.0</u>
2				FACU species <u>82.0</u> x 4 = <u>328.0</u>
				UPL species x 5 =0.0
3				Column Totals: <u>98.0</u> (A) <u>365.0</u> (B)
4				Prevalence Index = B/A = 3.7
5				
6		-		Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
	0.0	= Total Co	over	3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size: 5')	70.0	V	EACH	4 - Morphological Adaptations ¹ (Provide supporting
1. Elymus repens			FACU	data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)
2. Agrostis gigantea		N	FACW	Problematic Hydrophytic Vegetation (Explain)
3. Phleum pratense			<u>FACU</u>	¹ Indicators of hydric soil and wetland hydrology must
4. <u>Echinochloa crus-galli</u>		_N_	_FAC_	be present, unless disturbed or problematic.
5. <u>Trifolium pratense</u>		N	<u>FACU</u>	Definitions of Vegetation Strata:
6. <u>Carex crawfordii</u>	1.0	N	<u>FACW</u>	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8	<u> </u>			Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12				Woody vines – All woody vines greater than 3.28 ft in
		= Total Co	over	height.
Woody Vine Stratum (Plot size:30')				
1				
2				
3				Hydrophytic Vegetation
4				Present? Yes No
		= Total Co	over	
Remarks: (Include photo numbers here or on a separate : The area is dominated by facultative plawetland.		ay gras	ses, and	d do not indicate that the swale is a

Sampling Point: noasc005

SOIL Sampling Point: <u>noasc005</u>

Profile Desc	ription: (D	escribe 1	to the de	th needed	to docun	nent the i	ndicator	or confirm	the absence	of indicators.)	
Depth Matrix Redox Features (inches) Color (moist) % Color (moist) % Type ¹ Loc ²							1.22	T	Demonto		
(inches)			<u>%</u>	•		<u>%</u>	Type'		Texture	Remarks	
0-10	10YR	3/2	95	7.5YR		_5_	<u> </u>	_M_	VFSL		
10-20	<u>10YR</u>	5/3	95	7.5YR	4/6	5	<u> </u>	_M_	<u>VFSL</u>		
				-							
				-							
¹ Type: C=C			etion, RM	=Reduced N	/latrix, MS	S=Masked	Sand Gr	ains.		n: PL=Pore Lining, M=Matrix.	
Hydric Soil										for Problematic Hydric Soils ³ :	
Histosol	(A1) oipedon (A2)		-	ilue Belov R A 149B)		(S8) (LR I	RR,		Muck (A10) (LRR K, L, MLRA 149B) Prairie Redox (A16) (LRR K, L, R)	
	stic (A3)	7			,		RR R, M	LRA 149B		Mucky Peat or Peat (S3) (LRR K, L, R)	
	en Sulfide (A				-		1) (LRR K	, L)		Surface (S7) (LRR K, L)	
	d Layers (At d Below Dar		e (A11)	-	ed Matrix	Matrix (F2 :(F3))			alue Below Surface (S8) (LRR K, L) Park Surface (S9) (LRR K, L)	
Thick Da	ark Surface	(A12)	,	Redox	Dark Sur	face (F6)			Iron-M	anganese Masses (F12) (LRR K, L, R)	
	Mucky Miner					Surface (F	7)		Piedmont Floodplain Soils (F19) (MLRA 149B)		
	Bleyed Matri Redox (S5)	X (54)		Redox	Depressi	ions (F8)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (F21)		
-	Matrix (S6))								Shallow Dark Surface (TF12)	
Dark Su	rface (S7) (I	LRR R, N	ILRA 149	B)					Other	(Explain in Remarks)	
³ Indicators of	f hydrophyti	c vegetat	ion and w	etland hydro	loav mus	t be prese	ent unles	s disturbed	or problemation	3.	
Restrictive		-				. 50 p. 00.	, u	3 4.014.204			
Type:											
Depth (in	ches):								Hydric Soil	Present? Yes No	
Remarks:		. =		5 . 6					1.41		
-					Surface	e was r	net. It	ıs assu	med these	e are relict hydric soils as	
hydrophy	/iic vege	etation	is abs	ent.							



noasc005_NE



noasc005_SE



noasc005_SW

Project/Site: Line 5 Relo	cation Project	City/C	County: Ashland	;	Sampling Date: <u>2019-09-26</u>					
Applicant/Owner: Enbridge	<u>e</u>			State: WI	_ Sampling Point: noasc006					
Investigator(s): BRG/JSV	V	Section, Township, Range: 045N-004W-03								
= ' ' '	ndform (hillslope, terrace, etc.): Talf Local relief (concave, convex, none): None Slope (%): 0-									
					Datum: WGS84					
					tion:					
Are climatic / hydrologic condi	itions on the site typical	I for this time of year? Y	′es <u> </u>	(If no, explain in Rer	marks.)					
Are Vegetation, Soil		-			esent? Yes No					
Are Vegetation, Soil				explain any answers						
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.										
Hydrophytic Vegetation Pres	sent? Yes ✔	No	Is the Sampled Area							
Hydric Soil Present?	· · · · · · · · · · · · · · · · · · ·	No	within a Wetland?	Yes	No <u>/</u>					
Wetland Hydrology Present?		No 🔽	If yes, optional Wetlan	d Site ID:						
Remarks: (Explain alternative	ve procedures here or i	n a separate report.)								
				•	ompletely flat, as the					
area was historically	•				9					
disturbed, and the h	nydrophytic veg	etation and soil	is present as a r	emnant of the	at previous activity.					
Some wetland indic	ators were obs	erved, but their	relative weaknes	ss and the cor	mplete lack of					
hydrologic indicator	s shows that th	e area is not a v	vetland.							
HYDROLOGY										
Wetland Hydrology Indicat	ors:			Secondary Indicate	ors (minimum of two required)					
Primary Indicators (minimum	of one is required; che	eck all that apply)	_	Surface Soil Cracks (B6)						
Surface Water (A1)	_	_ Water-Stained Leave	Drainage Patte	erns (B10)						
High Water Table (A2)	_	_ Aquatic Fauna (B13)		Moss Trim Lines (B16)						
Saturation (A3)	_	_ Marl Deposits (B15)		Dry-Season Water Table (C2)						
Water Marks (B1)	_	_ Hydrogen Sulfide Od	or (C1)	Crayfish Burro	ırrows (C8)					
Sediment Deposits (B2)		Oxidized Rhizospher		Saturation Visi	uration Visible on Aerial Imagery (C9)					
Drift Deposits (B3)		_ Presence of Reduced			_ Stunted or Stressed Plants (D1)					
Algal Mat or Crust (B4)		Recent Iron Reduction		Geomorphic P						
Iron Deposits (B5)		_ Thin Muck Surface (0	•	Shallow Aquita						
Inundation Visible on Ae		_ Other (Explain in Rer	narks)	Microtopograp						
Sparsely Vegetated Cor	ncave Surface (B8)		-	FAC-Neutral T	est (D5)					
Field Observations:										
Surface Water Present?		Depth (inches):								
Water Table Present?		Depth (inches):								
Saturation Present? (includes capillary fringe)	Yes No	Depth (inches):	Wetland	Hydrology Present?	? Yes No <u>/</u>					
Describe Recorded Data (str	ream gauge, monitoring	g well, aerial photos, pre	vious inspections), if av	ailable:						
Describe										
Remarks: No primary or secon	ndary indicator	s of wetland hyd	rology were obs	erved The ar	ea is flat with no					
depressional or bas	•	•	••		ca is nat with no					
depressional of bas	siii topograpiiy,	and no signs of	prolonged wate	i illulluation.						

VEGETATION – Use scientific names of plants.

/EGETATION - Use scientific names of plants	Sampling Point: noasc006			
Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?		Dominance Test worksheet:
1				Number of Dominant Species That Are OBL, FACW, or FAC:(A)
2				Total Number of Dominant
3				Species Across All Strata: 4.0 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:(A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	0.0	= Total Co	ver	OBL species <u>5.0</u> x 1 = <u>5.0</u>
Sapling/Shrub Stratum (Plot size: 15')				FACW species <u>92.0</u> x 2 = <u>184.0</u>
1. Salix petiolaris	80.0	<u>Y</u>	FACW	FAC species <u>4.0</u> x 3 = <u>12.0</u>
2. <u>Salix bebbiana</u>	10.0	N	FACW	FACU species 30.0 x 4 = 120.0
3				UPL species $10.0 \times 5 = 50.0$
4				Column Totals: <u>141.0</u> (A) <u>371.0</u> (B)
5				Prevalence Index = B/A =2.6
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
		= Total Co	ver	2 - Dominance Test is >50%
Herb Stratum (Plot size:5')				✓ 3 - Prevalence Index is ≤3.0¹
1. Bromus inermis	10.0	Y	UPL	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. <u>Pyrola elliptica</u>	10.0	<u> </u>	<u>FACU</u>	Problematic Hydrophytic Vegetation ¹ (Explain)
3. <u>Solidago altissima</u>		Y	<u>FACU</u>	1
4. <u>Scirpus hattorianus</u>		N	OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. <u>Agrimonia striata</u>	5.0	<u>N</u>	<u>FACU</u>	Definitions of Vegetation Strata:
6. <u>Fragaria virginiana</u>		N	<u>FACU</u>	_
7. <u>Cornus alba</u>	2.0	N	FACW	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8. <u>Geum aleppicum</u>		N	FAC	Sapling/shrub – Woody plants less than 3 in. DBH
9. Symphyotrichum lateriflorum	1.0	N	FAC	and greater than or equal to 3.28 ft (1 m) tall.
10. <u>Equisetum arvense</u>	1.0	N	FAC	Herb – All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12				Woody vines – All woody vines greater than 3.28 ft in
	51.0	= Total Co	ver	height.
Woody Vine Stratum (Plot size:)				
1				
2				
3.				Hydrophytic
4.				Vegetation
		= Total Cov	ver	Present? Yes <u>✓</u> No
Remarks: (Include photo numbers here or on a separate			•	

The area is dominated by a thick shrub layer of Salix, and a variable herbaceous layer of facultative upland and wetland species. Bromus inermis is present throughout much of the area. The area was historically used for agricultural purposes (crop field or pasture), and as such the Salix, Scirpus hattorianus, and other species are most likely present as a result of this disturbance and soil compaction.

SOIL Sampling Point: <u>noasc006</u>

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)												
Depth Matrix Redox Features												
(inches)	Color (moist)	<u>%</u>	Color (r		<u>%</u>	Type'	Loc ²	Texture	Remarks Distinct redex			
0-10	10YR 3/2	98	7.5YR			<u> </u>	<u> </u>	_SIL_	Distinct redox			
10-20	7.5YR 5/4	95	<u>5YR</u>	5/8	5	<u>C</u>	_M_	_VFS_	Prominent redox			
									·			
						'						
¹ Type: C=C	concentration, D=Depl	etion, RM	=Reduced N	Matrix, MS	S=Masked	I Sand Gr	ains.	² Location	n: PL=Pore Lining, M=Matrix.			
Hydric Soil		,		,					s for Problematic Hydric Soils³:			
Histosol	` '				w Surface	(S8) (LR	R R,		Muck (A10) (LRR K, L, MLRA 149B)			
	pipedon (A2) istic (A3)			RA 149B) Dark Surfa		RR R. M	LRA 149B)		Prairie Redox (A16) (LRR K, L, R) Mucky Peat or Peat (S3) (LRR K, L, R)			
Hydroge	en Sulfide (A4)		Loamy	/ Mucky N	/lineral (F	1) (LRR K		Dark Surface (S7) (LRR K, L)				
	d Layers (A5)	(444)	-	-	Matrix (F2	2)			Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L)			
	d Below Dark Surface ark Surface (A12)	(A11)		ted Matrix Dark Su	(F3) rface (F6)			Iron-Manganese Masses (F12) (LRR K, L, R)				
	Mucky Mineral (S1)				Surface (F			Piedmont Floodplain Soils (F19) (MLRA 149B)				
-	Gleyed Matrix (S4)		Redox	Depress	ions (F8)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)				
-	Redox (S5) d Matrix (S6)								Parent Material (F21) Shallow Dark Surface (TF12)			
	urface (S7) (LRR R, M	LRA 149	B)						(Explain in Remarks)			
³ Indicators o	of hydrophytic vegetati	on and w	etland hydro	ology mus	st be prese	ent, unles	s disturbed	or problemati	ic.			
Restrictive	Layer (if observed):											
Type:												
Depth (in	ches):							Hydric Soi	I Present? Yes No			
Remarks:	redov je pres	ant thr	ouahout	the n	rofila s	oile de	not me	act any h	ydric indicators.			
Aithough	i redux is presi	5111 1111	ougnout	ille pi	onie, s	ouis ut) HOL HIE	ct arry ri	yane indicators.			



noasc006_N



noasc006_W

Project/Site: Line 5 Relo	cation P	roject	City/0	County: Ash	land	Sa	ampling Date: 2	2019-09-26	
Applicant/Owner: Enbridge		•							
J			Section, Township, Range: <u>045N-004W-03</u>						
			Local relief (concave, convex, none): None Slope (%): 0-29						
			_at: <u>46.408501</u> Long: <u>-90.846387</u> Datum: <u>WGS8</u>						
Soil Map Unit Name: Allend									
Are climatic / hydrologic condi		•	•	•					
Are Vegetation, Soil								· No	
_	-		-					110	
Are Vegetation, Soil									
SUMMARY OF FINDING	GS – Atta	ich site	map showing sar	mpling poi	nt locatior	ns, transects, ir	mportant fea	atures, etc.	
Hydrophytic Vegetation Pres			No <u> </u>	Is the Samp					
Hydric Soil Present?		Yes	No	within a We	etland?	Yes	No <u> </u>		
Wetland Hydrology Present?	•	Yes	No <u> </u>	If yes, optio	nal Wetland S	Site ID:			
Remarks: (Explain alternative The area is a young	e procedure	s here or i	n a separate report.)	مط ماہ سام ا	over lees	stad in a MMM	l nolvaon	howover	
HYDROLOGY									
Wetland Hydrology Indicat						Secondary Indicator		wo required)	
Primary Indicators (minimum	of one is red					Surface Soil Cracks (B6)			
Surface Water (A1)			Water-Stained Leave			Drainage Patterns (B10)			
High Water Table (A2)			_ Aquatic Fauna (B13)		=	Moss Trim Lines (B16)			
Saturation (A3)			_ Marl Deposits (B15)		_	Dry-Season Water Table (C2) Crayfish Burrows (C8)			
Water Marks (B1)Sediment Deposits (B2)			Hydrogen Sulfide OdOxidized Rhizospher		· -	-		geny (CQ)	
Orift Deposits (B3)			Oxidized KriizospherPresence of Reduce	_		Saturation visib Stunted or Stres			
Algal Mat or Crust (B4)			Recent Iron Reduction			Geomorphic Po		,	
Iron Deposits (B5)			Thin Muck Surface (Shallow Aquitar			
Inundation Visible on Ae	erial Imagery		Other (Explain in Re			Microtopograph			
Sparsely Vegetated Cor			_	,	_	FAC-Neutral Te			
Field Observations:									
Surface Water Present?			Depth (inches):						
Water Table Present?			Depth (inches):						
Saturation Present?	Yes	_ No	Depth (inches):		Wetland Hy	drology Present?	Yes	No <u>~</u>	
(includes capillary fringe) Describe Recorded Data (str	eam gauge.	monitoring	g well, aerial photos, pre	evious inspect	ions), if availa	able:			
(**	33.,		3 - , ,, ,		7,				
Remarks: No indicators of we	tland hv	drology	ware observed	1					
INO IIIUICALOIS OI WE	lianu nyc	arology	Meie obseived	۱.					

Tree Stratum (Plot size:30')	Absolute % Cover		Indicator	Dominance Test worksheet:
1. <u>Betula papyrifera</u>			FACU	Number of Dominant Species
Abies balsamea			FAC	That Are OBL, FACW, or FAC:3(A)
2. <u>Apres paisamea</u> 3. <u>Populus tremuloides</u>			FAC	Total Number of Dominant Species Across All Strata: 10 (B)
•		N	FAC	
4. <u>Acer rubrum</u>				Percent of Dominant Species That Are OBL, FACW, or FAC: 30.00 (A/B)
5. <u>Fraxinus pennsylvanica</u>				
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
4-1	80.0	= Total Co	ver	OBL species 0 x 1 = 0
Sapling/Shrub Stratum (Plot size: 15')				FACW species 12 x 2 = 24 FAC species 53 x 3 = 159
1. <u>Cornus alternifolia</u>				FACU species 102 x 4 = 408
2. <u>Acer rubrum</u>			_FAC_	UPL species 0 x 5 = 0
з. <u>Betula papyrifera</u>			<u>FACU</u>	Column Totals: <u>167</u> (A) <u>591</u> (B)
4. Fraxinus pennsylvanica	5.0	N	<u>FACW</u>	
5				Prevalence Index = B/A = 3.54
6				Hydrophytic Vegetation Indicators:
7		-		1 - Rapid Test for Hydrophytic Vegetation
	45	= Total Co	ver	2 - Dominance Test is >50%
Herb Stratum (Plot size: 5')				3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting
1. <u>Pteridium aquilinum</u>	20.0	Y	<u>FACU</u>	data in Remarks or on a separate sheet)
2. <u>Hieracium piloselloides</u>	5.0	Y	<u>NI</u>	Problematic Hydrophytic Vegetation ¹ (Explain)
3. <u>Fragaria virginiana</u>	5.0	Y	<u>FACU</u>	1
4. <u>Carex gracillima</u>		Y	<u>FACU</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. <u>Acer rubrum</u>		Y	FAC	Definitions of Vegetation Strata:
6. Solidago gigantea		N	FACW	_
7. Agrimonia striata		N	FACU	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8. Abies balsamea		N	FAC	
9. Symphyotrichum lateriflorum			FAC	Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12.		-		Woody vines – All woody vines greater than 3.28 ft in
12.		= Total Co	vor.	height.
Woody Vine Stratum (Plot size:30')		= Total Co	vei	
,,				
1				
2				
3				Hydrophytic Vegetation
4			·	Present? Yes No
		= Total Co	ver	
Remarks: (Include photo numbers here or on a separate The area is a young dry-mesic forest w		erate w	orm pres	sence
The area is a young ary mode forest w		orato III	om pro	

Sampling Point: noasc007

SOIL Sampling Point: <u>noasc007</u>

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)											
Depth	Matrix			Tautura	Damadia						
(inches) 0-8	Color (moist) 10YR 4/3	100	Color (moist)	<u> </u>	Type'	Loc ²	VFSL	Remarks			
8-20							VFS				
0-20	7.511X 0/4	100					<u> </u>				
		-		-	-						
				-	-						
				-							
				-							
	-										
¹ Type: C=C Hydric Soil	oncentration, D=Dep	letion, RM=	Reduced Matrix, MS	S=Masked	Sand Gr	ains.		e Lining, M=Matrix. lematic Hydric Soils³:			
Histoso			Polyvalue Belov	v Surface	(S8) (I RI	? R) (LRR K, L, MLRA 149B)			
	pipedon (A2)	•	MLRA 149B)		(OO) (LIKI	· 1.,		edox (A16) (LRR K, L, R)			
	istic (A3)		Thin Dark Surfa					at or Peat (S3) (LRR K, L, R)			
	en Sulfide (A4) d Layers (A5)		Loamy Mucky N Loamy Gleyed			, L)	Dark Surface (S Polyvalue Below	7) (LRR K, L) 7 Surface (S8) (LRR K, L)			
	d Below Dark Surface	e (A11)	Depleted Matrix	(F3)				ce (S9) (LRR K, L)			
	ark Surface (A12)		Redox Dark Su					Masses (F12) (LRR K, L, R)			
-	Mucky Mineral (S1) Gleyed Matrix (S4)		Depleted Dark Section Redox Depress		-7)			plain Soils (F19) (MLRA 149B) (A6) (MLRA 144A, 145, 149B)			
-	Redox (S5)	•	<u> </u>	()				Red Parent Material (F21)			
	d Matrix (S6)						Very Shallow Dark Surface (TF12) Other (Explain in Remarks)				
Dark Su	ırface (S7) (LRR R, N	ILRA 149B)				Other (Explain in	ı Remarks)			
	of hydrophytic vegetat		tland hydrology mus	t be prese	ent, unless	disturbed	or problematic.				
	Layer (if observed):										
Type:	ah a a \						Hydric Soil Present?	? Yes No <u>/</u> _			
Depth (in Remarks:	iches):						Tryunc 3011 resents				
	c soil indicator	s were	observed.								



noasc007_E



noasc007_N

Project/Site: Line 5 Reloc	cation Project	City/0	County: Ashland	;	Sampling Date: <u>2019-10-14</u>		
	•				Sampling Point: noasc011		
•			Section, Township, Range: 045N-003W-25				
					Slope (%): <u>0-2%</u>		
Subregion (LRR or MLRA): No	rthcentral Forests	Lat: 46 347984	Long:	-90.678092	Datum: WGS84		
Soil Map Unit Name: Gogebic							
Are climatic / hydrologic conditi							
		-			esent? Yes <u>v</u> No		
Are Vegetation, Soil							
SUMMARY OF FINDING	iS – Attach sit	e map showing san	npling point loca	itions, transects,	important features, etc.		
Hydrophytic Vegetation Prese Hydric Soil Present?	Yes	No	Is the Sampled Are within a Wetland?		_ No <u> </u>		
Wetland Hydrology Present? Remarks: (Explain alternative		No	If yes, optional Wetl	land Site ID:			
vegetation, along wi	th some upla	nd species in oth	er strata. The a	area has no wet	land hydrology.		
HYDROLOGY							
Wetland Hydrology Indicato					ors (minimum of two required)		
Primary Indicators (minimum							
Surface Water (A1)		Water-Stained Leave		Drainage Patterns (B10) Moss Trim Lines (B16)			
High Water Table (A2) Saturation (A3)		Aquatic Fauna (B13)Marl Deposits (B15)			ater Table (C2)		
Water Marks (B1)		Hydrogen Sulfide Oc		Crayfish Burro			
Sediment Deposits (B2)		Oxidized Rhizospher			ible on Aerial Imagery (C9)		
Drift Deposits (B3)		Presence of Reduce		Stunted or Stre	= : : :		
Algal Mat or Crust (B4)		Recent Iron Reduction	` '	Geomorphic P			
Iron Deposits (B5)		Thin Muck Surface (C7)	Shallow Aquita	ard (D3)		
Inundation Visible on Aer	ial Imagery (B7)	Other (Explain in Re	marks)	Microtopograp	hic Relief (D4)		
Sparsely Vegetated Cond	cave Surface (B8)			✓ FAC-Neutral T	est (D5)		
Field Observations:							
Surface Water Present?		✓ Depth (inches):					
Water Table Present?		Depth (inches):					
Saturation Present? (includes capillary fringe)	Yes No	✓ Depth (inches):	Wetlan	id Hydrology Present	? Yes No <u> </u>		
Describe Recorded Data (stre	am gauge, monitor	ing well, aerial photos, pre	evious inspections), if	available:			
Remarks:							
No primary indicator	s of wetland	hydrology were o	bserved.				
		, 0,					

VEGETATION – Use scientific names of plants.

VEGETATION – Use scientific names of plants.				Sampling Point: <u>noasc011</u>	
Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?		Dominance Test worksheet:	
1. Abies balsamea	10.0	<u>Y</u>	FAC	Number of Dominant Species That Are OBL, FACW, or FAC:3(A)	
2. <u>Ulmus americana</u>	5.0	Y	<u>FACW</u>	Total Number of Dominant	
3				Species Across All Strata:4 (B)	
4				Percent of Dominant Species	
5				That Are OBL, FACW, or FAC:	
6				Prevalence Index worksheet:	
7				Total % Cover of: Multiply by:	
	15	= Total Cov	/er	OBL species0 x 1 =0	
Sapling/Shrub Stratum (Plot size: 15')				FACW species	
1. <u>Alnus incana</u>			<u>FACW</u>	FAC species 25 x 3 = 75 FACU species 76 x 4 = 304	
2. <u>Abies balsamea</u>			_FAC_	UPL species x 5 =	
3. <u>Prunus serotina</u>				Column Totals: <u>171</u> (A) <u>519</u> (B)	
4				Prevalence Index = B/A = 3.04	
6.				Hydrophytic Vegetation Indicators:	
7				1 - Rapid Test for Hydrophytic Vegetation	
		= Total Cov		2 - Dominance Test is >50%	
Herb Stratum (Plot size: 5')			3 - Prevalence Index is ≤3.0¹		
1. <u>Carex gracillima</u>	50.0	Υ	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
2. Mitchella repens		N	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)	
3. <u>Solidago gigantea</u>		N	FACW	4	
4. Rubus pubescens		N	FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
5. <u>Abies balsamea</u>	5.0	N	FAC	Definitions of Vegetation Strata:	
6. <u>Fragaria virginiana</u>	2.0	N	<u>FACU</u>	_	
7. Agrimonia striata	2.0	N	<u>FACU</u>	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH	
8. <u>Prunus serotina</u>	2.0	N	<u>FACU</u>		
9				and greater than or equal to 3.28 ft (1 m) tall.	
10				Herb - All herbaceous (non-woody) plants, regardless	
11				of size, and woody plants less than 3.28 ft tall.	
12				Woody vines – All woody vines greater than 3.28 ft in height.	
	neignt.				
Woody Vine Stratum (Plot size:)					
1					
2					
3				Hydrophytic	
				Vegetation Present? Yes <u>✓</u> No	
4	= Total Cover sheet.)			<u> </u>	

SOIL Sampling Point: noasc011

Profile Desc	cription: (Describe	to the dep	th needed to docur	nent the i	indicator	or confirm	the absence of inc	dicators.)
Depth	Matrix	0/		x Feature		1 2	Tandona	Damada
(inches)	Color (moist) 7.5YR 3/3	100	Color (moist)	<u> </u>	Type'	Loc ²	CI.	Remarks
		100					SIL	
	<u> </u>	_ 100_		-				
				-				
		_						
	-				. ——			
				· - 	. ——			
				· <u></u>	. ———			
				·				
1							2	
'Type: C=C Hydric Soil		oletion, RM=	Reduced Matrix, M	S=Masked	d Sand Gra	ains.		Pore Lining, M=Matrix. roblematic Hydric Soils ³ :
Histosol	(A1)		Polyvalue Belov	w Surface	(S8) (LRF	RR,	2 cm Muck (A10) (LRR K, L, MLRA 149B)
	pipedon (A2) istic (A3)		MLRA 149B) Thin Dark Surfa		DD D MI	DA 140B)		e Redox (A16) (LRR K, L, R) Peat or Peat (S3) (LRR K, L, R)
	en Sulfide (A4)		Loamy Mucky N					e (S7) (LRR K, L)
	d Layers (A5)	oo (A11)	Loamy Gleyed		2)			elow Surface (S8) (LRR K, L)
-	d Below Dark Surfac ark Surface (A12)	ze (ATT)	Depleted Matrix Redox Dark Su					urface (S9) (LRR K, L) lese Masses (F12) (LRR K, L, R)
Sandy N	Mucky Mineral (S1)		Depleted Dark	Surface (F			Piedmont Flo	oodplain Soils (F19) (MLRA 149B)
-	Gleyed Matrix (S4) Redox (S5)		Redox Depress	ions (F8)				c (TA6) (MLRA 144A, 145, 149B) Material (F21)
-	Matrix (S6)							v Dark Surface (TF12)
Dark Su	rface (S7) (LRR R,	MLRA 149B	3)				Other (Expla	in in Remarks)
			tland hydrology mus	st be prese	ent, unless	disturbed	or problematic.	
	Layer (if observed)	:						
Type:	ches):						Hvdric Soil Prese	ent? Yes No <u>/</u> _
Remarks:	ches):							
	c soil indicate	rs obsei	ved.					



noasc011_N



noasc011_W

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Line 5 Relo	cation Projec	t	City/C	County: Ash	nland		Sampling Date	e: <u>2019-10-16</u>
Applicant/Owner: Enbridge	•							
Investigator(s): BRG/JSV								
Landform (hillslope, terrace, e								
Subregion (LRR or MLRA): N								
Soil Map Unit Name: Goget								
Are climatic / hydrologic condi	•		·	•	•	•		
Are Vegetation _ ✓ _, Soil _								✓ No
_								
Are Vegetation, Soil								
SUMMARY OF FINDING	GS – Attach si	te m	nap showing sam	ipling poi	nt locatior	ns, transects	i, important	features, etc.
Hydrophytic Vegetation Pres			No	Is the Sam	pled Area etland?	Yes	No <u> </u>	
Hydric Soil Present?			No <u></u>					
Wetland Hydrology Present? Remarks: (Explain alternative)				If yes, optio	nai vvetiand	Site ID:		
The area has hydro	phytic vegeta	atio	n, but does not	meet su	fficient h	ydrologic re	equiremen ^e	ts to be
classified as wetlan					-		•	
woody vegetation is			,					
Woody vegetation is	s regularly ear	ι.						
HYDROLOGY								
Wetland Hydrology Indicat	ors:				<u> </u>	Secondary Indica	ators (minimum	of two required)
Primary Indicators (minimum	n of one is required;	chec	k all that apply)			Surface Soil	Cracks (B6)	
Surface Water (A1)			Water-Stained Leave	s (B9)	_	Drainage Pa	itterns (B10)	
High Water Table (A2)			Aquatic Fauna (B13)		-	Moss Trim L	.ines (B16)	
Saturation (A3)			Marl Deposits (B15)		-	Dry-Season	Water Table (C	(2)
Water Marks (B1)			Hydrogen Sulfide Od			Crayfish Bur		
Sediment Deposits (B2)			Oxidized Rhizospher	_				
Drift Deposits (B3)			Presence of Reduced	, ,		Stunted or S		(D1)
Algal Mat or Crust (B4)			Recent Iron Reduction			Geomorphic		
Iron Deposits (B5)			Thin Muck Surface (C			Shallow Aqu		
Inundation Visible on Ae			Other (Explain in Rer	narks)		Microtopogra		1)
Sparsely Vegetated Cor	icave Surface (B8)					✓ FAC-Neutral	Test (D5)	
Field Observations: Surface Water Present?	Voc. No.	.,	Donth (inches):		İ			
Water Table Present?			Depth (inches): Depth (inches):		i			
Saturation Present?			Depth (inches):		Wetland Hy	ydrology Preser	nt? Vos	No 4
(includes capillary fringe)	Tes NO_		_ Deptil (iliches)		welland ny	yurology Fresei	it: 1es	_ NO
Describe Recorded Data (str	ream gauge, monito	ring v	well, aerial photos, pre	vious inspect	tions), if avail	able:		
Remarks: The area has hydro	nhytic voacts	atio	n but no suffici	iont crito	ria for wa	stland bydro	ology is my	ot due to the
			ii, but no sumo	ieni Gniei	ia ioi we	tilariu riyurt	Jogy is int	st due to the
lack of depressiona	i topograpny.	•						

VEGETATION – Use scientific names of plants.

	Absolute		t Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)			Status_	Number of Dominant Species
1				That Are OBL, FACW, or FAC:1.0 (A)
2				Total Number of Dominant
3				Species Across All Strata:(B)
4				Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)
5				That Are OBL, FACW, or FAC:100.0 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	0.0	= Total Co	over	OBL species <u>60.0</u> x 1 = <u>60.0</u>
Sapling/Shrub Stratum (Plot size: 15')				FACW species 23.0 x 2 = 46.0
1				FAC species1.0 x 3 =33.0 FACU species1.0 x 4 =4.0
2				UPL species 0.0 x5 = 0.0
3				Column Totals: 95.0 (A) 143.0 (B)
4				
5				Prevalence Index = B/A =1.5
6	_			Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	0.0	= Total Co	over	2 - Dominance Test is >50%
Herb Stratum (Plot size: 5')				3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting)
1. Calamagrostis canadensis	60.0	Y	OBL	data in Remarks or on a separate sheet)
2. <u>Solidago gigantea</u>	10.0	N	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Rubus idaeus	5.0	N	FAC	1
4. <u>Ilex verticillata</u>	5.0	N	FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. Symphyotrichum lateriflorum	5.0	N	FAC	Definitions of Vegetation Strata:
6. <u>Lysimachia ciliata</u>	5.0	N	FACW	
7. Verbena hastata	2.0	Ν	FACW	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8. Onoclea sensibilis	1.0	N	FACW	Sapling/shrub – Woody plants less than 3 in. DBH
9. Populus tremuloides		N	FAC	and greater than or equal to 3.28 ft (1 m) tall.
10. Ranunculus sp.		N		Herb – All herbaceous (non-woody) plants, regardless
11. Fragaria virginiana		N	FACU	of size, and woody plants less than 3.28 ft tall.
12.				Woody vines – All woody vines greater than 3.28 ft in
	95.0	= Total Co	over	height.
Woody Vine Stratum (Plot size:30')		. 0.0.		
1				
2				
3				Hudusahudia
4				Hydrophytic Vegetation
T		= Total Co		Present? Yes <u>✓</u> No
Remarks: (Include photo numbers here or on a separate		= 10(a) 00)vei	
Woody vegetation is cut. The area is do		d by ad	lvantage	ous species that grow well in
disturbed areas.				

Sampling Point: noasc012

SOIL Sampling Point: noasc012

Profile Desc	ription: (Describe t	o the dept				or confirm	the absence	of indicato	rs.)	
Depth	Matrix	0/		x Features		1.5.2	Taut		D	
(inches)	Color (moist)	%	Color (moist)	<u> </u>	Type'	Loc ²	<u>Texture</u>		Remarks	<u>S</u>
				. ——			<u> </u>			
				· ——						
				·						
				· <u></u>						
	oncentration, D=Depl	etion, RM=	Reduced Matrix, M	S=Masked	Sand Gra	ains.			_ining, M=M	
Hydric Soil I Histosol			Polyvalue Belov	w Surface	(S8) (I RE	P	Indicators		•	c Soils": MLRA 149B)
Histic Ep	pipedon (A2)	-	MLRA 149B)			Coast F	, , ,	ox (A16) (LF	,
Black His	stic (A3) n Sulfide (A4)	-	Thin Dark Surfa Loamy Mucky N					lucky Peat o urface (S7)		(LRR K, L, R)
	Layers (A5)	-	Loamy Gleyed			· - /				(LRR K, L)
	Below Dark Surface	(A11) _	Depleted Matrix						(S9) (LRR I	
	ark Surface (A12) lucky Mineral (S1)	=	Redox Dark Su Depleted Dark		7)			_		9) (LRR K, L, R) 9) (MLRA 149B)
-	ileyed Matrix (S4)	-	Redox Depress		')					44A, 145, 149B)
	edox (S5)							rent Materia		
	Matrix (S6) face (S7) (LRR R, M	LRA 149B)	1					nallow Dark Explain in R	Surface (TI Remarks)	F12)
	hydrophytic vegetati	on and wet	land hydrology mus	st be prese	nt, unless	disturbed	or problematic			
	_ayer (if observed):									
Type:	phoo):						Hydric Soil	Present?	Yes	No <u> </u>
Remarks:	ches):						Tryumo com			
Soils cou	ld not be sam									
	along a road. S		e assumed to	be nor	n-hydri	c base	d on the la	andscap	e position	on and
vegetativ	e composition									



noasc012_E



noasc012_N



noasc012_S

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Line 5 Relocation Project	City/County: As	hland	Sampling Date: 2019-09-23
•			
Investigator(s): ARK/KDF	Section, Townshi	p, Range: <u>045N-003W-</u>	23
Landform (hillslope, terrace, etc.): Backslope			
Subregion (LRR or MLRA): Northcentral Forests L			
Soil Map Unit Name: Tula-Wormet-Gogebic c			
Are climatic / hydrologic conditions on the site typical			
Are Vegetation, Soil, or Hydrology			
Are Vegetation, Soil, or Hydrology			
SUMMARY OF FINDINGS – Attach site	map showing sampling po	int locations, transects	s, important features, etc.
Hydrophytic Vegetation Present? Yes	No Is the Sar	npled Area	
	No vithin a V	Vetland? Yes	No <u> </u>
		onal Wetland Site ID:	
Remarks: (Explain alternative procedures here or i	in a separate report.)	ro within a mixed oc	unifor hardwood forest
Non-wetland sample point located	in a mapped www reatu	re within a mixed co	oniiei-naidwood iorest.
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum of one is required; che	eck all that apply)	Surface Soi	l Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Pa	atterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim L	_ines (B16)
Saturation (A3)	_ Marl Deposits (B15)	Dry-Season	Water Table (C2)
	_ Hydrogen Sulfide Odor (C1)	Crayfish Bu	
	 Oxidized Rhizospheres on Living 		/isible on Aerial Imagery (C9)
1 -	Presence of Reduced Iron (C4)		Stressed Plants (D1)
1 — · · · · —	Recent Iron Reduction in Tilled S	• • •	Position (D2)
	_ Thin Muck Surface (C7)	Shallow Aqu	
	_ Other (Explain in Remarks)	· -	raphic Relief (D4)
Sparsely Vegetated Concave Surface (B8) Field Observations:		<u> ✓</u> FAC-Neutra	ai rest (D5)
	Depth (inches):		
	Depth (inches):		
	Depth (inches):	Wetland Hydrology Prese	nt? Yes No <u>/</u>
(includes capillary fringe)			165 <u></u> 16 <u></u>
Describe Recorded Data (stream gauge, monitoring	g well, aerial photos, previous inspe	ctions), if available:	
Remarks:			
No primary indicators of wetland h	ydrology were observed		

VEGETATION – Use scientific names of plants.

VEGETATION – Use scientific names of plants				Sampling Point: noase001
Tree Stratum (Plot size:30')	Absolute % Cover		t Indicator Status	Dominance Test worksheet:
1. Abies balsamea				Number of Dominant Species That Are OBL, FACW, or FAC:3(A)
2. Acer saccharum			FACU	Total Number of Dominant
3. Quercus rubra			<u>FACU</u>	Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100.00 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	72	= Total Co	over	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size:)				FACW species5 x 2 =10
1. Betula alleghaniensis	5	Y	FAC	FAC species 67 x 3 = 201
2. <i>Fraxinus nigra</i>	5	Y	<u>FACW</u>	FACU species 16 x 4 = 64 UPL species 0 x 5 = 0
3				Column Totals: 88 (A) 275 (B)
4				、, 、,
5				Prevalence Index = B/A =3.13
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	10	= Total Co	over	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size:)				4 - Morphological Adaptations ¹ (Provide supporting
1. Carex pedunculata		N	FAC	data in Remarks or on a separate sheet)
2. <u>Mitchella repens</u>	_ 2	N	<u>FACU</u>	Problematic Hydrophytic Vegetation ¹ (Explain)
3. <u>Pteridium aquilinum</u>	_ 2	N	<u>FACU</u>	¹ Indicators of hydric soil and wetland hydrology must
4				be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10	- ·			Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11				
12				Woody vines – All woody vines greater than 3.28 ft in height.
	6	= Total Co	over	
Woody Vine Stratum (Plot size: 30')				
1				
2				
3				Hydrophytic Vegetation
4	_			Present? Yes _ v No
Remarks: (Include photo numbers here or on a separate		= Total Co	over	
Upland forest plants.	sneet.)			

SOIL Sampling Point: noase001

Profile Desc	cription: (Describe	to the dept	h needed to docur	nent the i	ndicator	or confirm	the absence o	f indicators.)
Depth	Matrix	<u></u> %	Redo Color (moist)	x Features		Loc ²	Texture	Remarks
(inches)	Color (moist)		Color (moist)	%	Type'	LOC	rexture	Remarks
0-6	10YR 3/2	100						
		· -						
		· <u></u>						
		· -		·				
		· —— -						
		· -		·				
	oncentration, D=Dep	letion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ains.	² Location:	PL=Pore Lining, M=Matrix.
Hydric Soil			Daharaha Dala		(Oo) // DE			or Problematic Hydric Soils ³ :
Histosol	pipedon (A2)	-	Polyvalue Belov MLRA 149B)		(58) (LRF	κκ,		rairie Redox (A16) (LRR K, L, MLRA 149B)
	istic (A3)	_	Thin Dark Surfa		RR R, MI	_RA 149B)		icky Peat or Peat (S3) (LRR K, L, R)
	en Sulfide (A4)	-	Loamy Mucky N			, L)		rface (S7) (LRR K, L)
	d Layers (A5)	- (044)	Loamy Gleyed I)			e Below Surface (S8) (LRR K, L)
-	d Below Dark Surface ark Surface (A12)	e (A11)	Depleted MatrixRedox Dark Su					rk Surface (S9) (LRR K, L) nganese Masses (F12) (LRR K, L, R)
	Mucky Mineral (S1)	-	Depleted Dark \$		7)			nt Floodplain Soils (F19) (MLRA 149B)
-	Gleyed Matrix (S4)	-	Redox Depress		,			podic (TA6) (MLRA 144A, 145, 149B)
-	Redox (S5)							ent Material (F21)
	d Matrix (S6) Irface (S7) (LRR R, N	M D A 440D	\					allow Dark Surface (TF12) xplain in Remarks)
Dark Su	mace (57) (LKK K, N	ILKA 1490)				Office (E	xpiairi ir Remarks)
	f hydrophytic vegetat		land hydrology mus	t be prese	ent, unless	disturbed	or problematic.	
	Layer (if observed):							
Type: <u>ro</u>								
	ches): <u>6</u>		,				Hydric Soil P	resent? Yes No
Remarks:	-t	!-						
ino indica	ators of hydric	SOIIS W	ere observed					



noase001_E



noase001_W

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Line 5 Reloca	tion Project	City/C	County: Ashland		Sampling Date: 2019-10-14		
Applicant/Owner: Enbridge	•						
Investigator(s): ARK/NTT		Section	on, Township, Range:	046N-004W-0	8		
Landform (hillslope, terrace, etc.):	: Talf	Local rel	ief (concave, convex,	none): None	Slope (%): <u>0-2%</u>		
Subregion (LRR or MLRA): North							
Soil Map Unit Name: Sanborg							
Are climatic / hydrologic condition	is on the site typica	al for this time of year? Y	∕es <u> 火 </u> No <u> </u>	_ (If no, explain in Re	emarks.)		
Are Vegetation, Soil	, or Hydrology _	significantly distur	rbed? Are "Nor	mal Circumstances" p	resent? Yes No		
Are Vegetation, Soil	, or Hydrology _	naturally problema	atic? (If neede	d, explain any answer	s in Remarks.)		
SUMMARY OF FINDINGS	- Attach site	map showing san	npling point loca	tions, transects,	important features, etc.		
Hydrophytic Vegetation Present	:? Yes <u>•</u>	/ No	Is the Sampled Are				
Hydric Soil Present?	Yes	No 🗸	within a Wetland?	Yes	No		
Wetland Hydrology Present? Remarks: (Explain alternative p		No <u> </u>	If yes, optional Wetla	and Site ID:			
Young forest within a	Шарреч түү	n porygon.					
HYDROLOGY Wetland Hydrology Indicators				Secondary Indicat	ors (minimum of two required)		
Primary Indicators (minimum of		neck all that apply)		Surface Soil (
Surface Water (A1)		Water-Stained Leave	es (B9)	Drainage Patt	, ,		
High Water Table (A2)	_	Aquatic Fauna (B13)		Moss Trim Lir			
Saturation (A3)	_	Marl Deposits (B15)		Dry-Season Water Table (C2)			
Water Marks (B1)		Hydrogen Sulfide Od		Crayfish Burre			
Sediment Deposits (B2)		Oxidized Rhizospher					
Drift Deposits (B3)		Presence of Reduced			ressed Plants (D1)		
Algal Mat or Crust (B4) Iron Deposits (B5)		Recent Iron ReductionThin Muck Surface (0		Soils (C6) Geomorphic Position (D2) Shallow Aquitard (D3)			
Inundation Visible on Aerial		Other (Explain in Rer		Shallow Aquitard (D3) Microtopographic Relief (D4)			
Sparsely Vegetated Concav		01101 (EApiciii	nano,	FAC-Neutral Test (D5)			
Field Observations:	,				. 661 (= 2)		
Surface Water Present?	Yes No _•	Depth (inches):					
		Depth (inches):					
Saturation Present? (includes capillary fringe)	Yes No	Depth (inches):	Wetlan	d Hydrology Present	? Yes No <u>/</u>		
Describe Recorded Data (stream	n gauge, monitorin	ng well, aerial photos, pre	evious inspections), if	available:			
Remarks:							
No indicators of wetla	nd hydrology	y observed.					
		•					

Indicator Status FAC FAC FACU FACW Cover FAC FACU FACU FACU FACU FACU FACU FACU	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 3.0 (A) Total Number of Dominant Species Across All Strata: 4.0 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0 (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0.0 x 1 = 0.0 FACW species 9.0 x 2 = 18.0 FAC species 115.0 x 3 = 345.0 FACU species 32.0 x 4 = 128.0 UPL species 0.0 x 5 = 0.0 Column Totals: 156.0 (A) 491.0 (B) Prevalence Index = B/A = 3.1 Hydrophytic Vegetation Indicators: - 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹ Indicators of hydric soil and wetland hyd
FAC FACU FACW Cover Cover FAC FACU FACU FACU FACU FACU	That Are OBL, FACW, or FAC:
FAC FACU FACW Cover Cover FAC FACU FACU FACU FACU FACU	Total Number of Dominant Species Across All Strata: 4.0 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0 (A/B) Prevalence Index worksheet:
FACU FACU Cover FACU FACU FACU FACU FACU FACU	Species Across All Strata:
FACU FACW Cover Cover FACU FACU FACU FACU	That Are OBL, FACW, or FAC:
FACW Cover Cover FAC FACU FACU	That Are OBL, FACW, or FAC:
Cover Cover FAC FACU FACU	Total % Cover of: OBL species $O.0$ OBL species OBL spe
Cover Cover FAC FACU FACU	Total % Cover of: OBL species $O.0$ OBL species OBL spe
Cover FAC FACU FACU	OBL species 0.0 x1 = 0.0 FACW species 9.0 x2 = 18.0 FAC species 115.0 x3 = 345.0 FACU species 32.0 x4 = 128.0 UPL species 0.0 x5 = 0.0 Column Totals: 156.0 (A) 491.0 (B) Prevalence Index = B/A = 3.1 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
Cover FAC FACU FACU	FACW species $9.0 x2 = 18.0$ FAC species $115.0 x3 = 345.0$ FACU species $32.0 x4 = 128.0$ UPL species $0.0 x5 = 0.0$ Column Totals: $156.0 (A) 491.0 (B)$ Prevalence Index = B/A = 3.1 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is $\le 3.0^1$ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)
Cover FAC FACU FACU	FACU species $32.0 \times 4 = 128.0$ UPL species $0.0 \times 5 = 0.0$ Column Totals: $156.0 \times 5 = 3.1$ Prevalence Index = B/A = 3.1 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is $\le 3.0^1$ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)
Cover FAC FACU FACU	UPL species
Cover FAC FACU FACU	Column Totals:
Cover FAC FACU FACU	Prevalence Index = B/A =
Cover FAC FACU FACU	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
Cover FAC FACU FACU	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
FAC FACU FACU	1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
FAC FACU FACU	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
FAC FACU FACU	4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
FACU FACU	data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
FACU FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
FACU	
	¹ Indicators of hydric soil and wetland hydrology must
_ <u>FAC</u>	
	be present, unless disturbed or problematic.
_ FACW	Definitions of Vegetation Strata:
	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
	at breast height (DBH), regardless of height.
	Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
<u> </u>	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
<u> </u>	Woody vines – All woody vines greater than 3.28 ft in
`ovor	height.
JOVEI	
	Hydrophytic Vegetation
_	Present? Yes _ v No
over	
	FACU FACW Cover

SOIL Sampling Point: <u>noase002</u>

Profile Des	cription: (Describe t	o the dept	h needed to docum	nent the i	ndicator	or confirm	n the absence of indicators.)			
Depth	Matrix	0/		x Features		1 2	Tudos			
(inches) 0-5	Color (moist) 10YR 3/2	<u>%</u>	Color (moist)	%	Type'	Loc ²	Texture Remarks			
5-14	2.5YR 4/6	100		·						
	2.5YR 4/6	30								
	5YR 5/2	70								
				· 						
¹ Type: C=C Hydric Soil	oncentration, D=Depl Indicators:	etion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ains.	² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ :			
Histoso	I (A1)	.	Polyvalue Belov	w Surface	(S8) (LRF	RR,	2 cm Muck (A10) (LRR K, L, MLRA 149B)			
	pipedon (A2) istic (A3)		MLRA 149B) Thin Dark Surfa		RR R. MI	RA 149B)	Coast Prairie Redox (A16) (LRR K, L, R)5 cm Mucky Peat or Peat (S3) (LRR K, L, F	5)		
Hydroge	en Sulfide (A4)	-	Loamy Mucky N	/lineral (F1	1) (LRR K		Dark Surface (S7) (LRR K, L)	•)		
	d Layers (A5) d Below Dark Surface	Δ (Δ11)	Loamy Gleyed I)		Polyvalue Below Surface (S8) (LRR K, L)Thin Dark Surface (S9) (LRR K, L)			
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Redox Dark Surface (F6)				Iron-Manganese Masses (F12) (LRR K, L,	R)					
-	Mucky Mineral (S1)	-	Depleted Dark S		7)		Piedmont Floodplain Soils (F19) (MLRA 14	-		
-	Gleyed Matrix (S4) Redox (S5)	-	Redox Depress	ions (F8)			Mesic Spodic (TA6) (MLRA 144A, 145, 149 Red Parent Material (F21)	9B)		
Stripped	d Matrix (S6)						Very Shallow Dark Surface (TF12)			
Dark Su	ırface (S7) (LRR R, N	ILRA 149B)				Other (Explain in Remarks)			
	f hydrophytic vegetat Layer (if observed):	ion and wet	land hydrology mus	t be prese	ent, unless	disturbed	l or problematic.			
Type:	Layer (II observed):									
Depth (in	ches):						Hydric Soil Present? Yes No	_		
Remarks:										
NO INGIC	ators of hydric	Soli we	re observed.							



noase002_NE



noase002_S

APPENDIX H

Non-Water Point Data Sheets
Part 2 of 3

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Line 5	City/County:	Ashland	Sampling Date: 9/19/2019
Applicant/Owner: Enbridge		State: WI	Sampling Point NOASV001
Investigator(s): Caitlin Cyrus, Chris Sheldon			hip, Range: N/A
Landform (hillslope, terrace, etc.): Flat			e, convex, none): Flat
	g.: <u>-90.70265</u>	Datum: WG	
Soil Map Unit Name Gogebic fine sandy loam, 1-6% slo			I Classification: PFO2Bg
Are climatic/hydrologic conditions of the site typical for			Are "normal
Are vegetation, soil, or hydrology Are vegetation, soil, or hydrology	significant	oroblematic?	circumstances" present? Yes
(If needed, explain any answers in remarks)	naturally p	orobiernatic:	circumstances present:
(ii ficeded, explain any anowere in remarke)			
SUMMARY OF FINDINGS			
Hydrophytic vegetation present? Y	Is the sample	ed area within a v	wetland? N
Hydric soil present?	•		
Indicators of wetland hydrology present?	If yes, optiona	al wetland site ID:	
		•	
Remarks: (Explain alternative procedures here or in a s	separate report.)		
Data point is located in an area mapped as P	FO2BG on NW	I dataset and T	8K in the Wisconsin Wetland
Inventory. <i>Abies balsamea</i> -dominated forest			
inventory. Ables balsamea-dominated forest	Stariu lacks iriu	iloators of riyard	ology.
11//2201.00/			
HYDROLOGY			
			condary Indicators (minimum of two
Primary Indicators (minimum of one is required; check			uired)
<u> </u>	tained Leaves (B9)		Surface Soil Cracks (B6)
<u> </u>	Fauna (B13)		Drainage Patterns (B10)
	posits (B15) n Sulfide Odor (C1		Moss Trim Lines (B16) Dry-Season Water Table (C2)
	Rhizospheres on		Crayfish Burrows (C8)
	oots (C3)		Saturation Visible on Aerial Imagery
	e of Reduced Iron		(C9)
 · · · · 	ron Reduction in T	` '	Stunted or Stressed Plants (D1)
Inundation Visible on Aerial Soils (C			Geomorphic Position (D2)
	ck Surface (C7)		Shallow Aquitard (D3)
	Explain in Remarks)		FAC-Neutral Test (D5)
Surface (B8)			Microtopographic Relief (D4)
			, ,
Field Observations:			
Surface water present? Yes NoX			Indicators of
Water table present? Yes No	Depth (inches	s):	wetland
Saturation present? Yes No	Depth (inches	s):	hydrology
(includes capillary fringe)			present? N
Describe recorded data (stream gauge, monitoring well	aerial photos pr	evious inspections	s) if available:
Describe recorded data (stream gauge, monitoring weil	, aeriai priotos, pri	evious irispections	s), ii avaliable.
N/A			
Remarks:			
No surface hydrology indicators present. Sub	surface hydrolo	nav indicators w	vere not identified due to
	Sarrace riyurdic	y maicaiois w	Total Identified due to
potential for underground utilities.			

VEGETATION - Use scientific names of plants

Tree Stratum Plot Size (30' radius) 1	Absolute % Cover 85 3 1	Dominant Species Y N N Total Cover Dominant	Indicator Status FAC FACU FAC	50/20 Thresholds 20% 50% Tree Stratum 18 45 Sapling/Shrub Stratum 4 10 Herb Stratum 25 62 Woody Vine Stratum 0 0 Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 2 (A) Total Number of Dominant Species Across 3 (B) Percent of Dominant Species that are OBL, 66.67% (A/B)
Stratum 1	% Cover 20 20 20	Species Y Total Cover	Status FAC	Prevalence Index Worksheet Total % Cover of: OBL species $0 \times 1 = 0$ FACW species $10 \times 2 = 20$ FAC species $119 \times 3 = 357$ FACU species $104 \times 4 = 416$ UPL species $0 \times 5 = 0$ Column totals $233 \times 5 = 0$ Prevalence Index $= 8/A = 3.40$
Herb Stratum Plot Size (5' radius) 1	Absolute % Cover 85 10 10 10 3 3 3	Dominant Species Y N N N N N N	Indicator Status FACU FACW FACU FAC FAC FACU FAC	Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation X Dominance test is >50% Prevalence index is ≤3.0* Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet) Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum Plot Size (30' radius)	124 Absolute % Cover	= Total Cover Dominant Species	Indicator Status	greater than 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height.
3	arate sheet)	= Total Cover		Hydrophytic vegetation present? Y
Prevalence Index calculated for reference	purposes (опу.		

Sampling Point: NOASV001

SOIL Sampling Point: NOASV001 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Features Texture Remarks (Inches) Color (moist) % Color (moist) Loc** Type* *Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains **Location: PL=Pore Lining, M=Matrix **Hydric Soil Indicators: Indicators for Problematic Hydric Soils:** Polyvalue Below Surface Histisol (A1) 2 cm Muck (A10) (LRR K, L, MLRA 149B Histic Epipedon (A2) (S8) (LRR R, MLRA Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) (LRR R, MLRA 149B Dark Surface (S7) (LRR K, L Loamy Mucky Mineral Stratified Layers (A5) Polyvalue Below Surface (S8) (LRR K, L) Depleted Below Dark Suface (A11) (F1) (**LRR K, L**) Thin Dark Surface (S9) (LRR K, L) Loamy Gleyed Matrix (F2) Iron-Manganese Masses (F12) (LRR K, L, R) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Depleted Matrix (F3) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Gleyed Matrix (S4) Redox Dark Surface (F6) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Sandy Redox (S5) Depleted Dark Surface (F7) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Stripped Matrix (S6) Redox Depressions (F8) Dark Surface (S7) (LRR R, MLRA Other (Explain in Remarks) *Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic Restrictive Layer (if observed): Type: N/A Hydric soil present? Depth (inches): Remarks: No ground disturbance allowed due to potential for underground utilities; assume soil is non-hydric based on absence of hydrology indicators.



Photograph 1: NOASV001, South



Photograph 2: NOASV001, North

Non-Water Point Photographs Line 5 Wetland Delineation September 19, 2019, Page 2 of 2



Photograph 3: NOASV001, West

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Line 5	City/County:	Ashland	Sampling Date: 10/9/2019		
Applicant/Owner: Enbridge		State: WI	Sampling Point: NOASV00	2	
Investigator(s): Caitlin Cyrus, Clay Robertson		Section, Town	nship, Range: N/A		
Landform (hillslope, terrace, etc.): hillslope	Loc	cal relief (conca	ave, convex, none): convex		
Slope (%): 15-25% Lat.: 46.31013 Lo	ng.: -90.637046	Datum: W	/GS 1984		
Soil Map Unit Name Moquah-Arnheim complex, 0-3% slo	pes, frequently floode	d N	WI Classification: R5UBH		
Are climatic/hydrologic conditions of the site typical for	this time of the year	? Yes (If	no, explain in remarks)		
Are vegetation , soil , or hydrology	significantly	/ disturbed?	Are "normal		
Are vegetation , soil , or hydrology	naturally pr	oblematic?	circumstances" present? Ye	es	
(If needed, explain any answers in remarks)			· -		
,					
SUMMARY OF FINDINGS					
Outline Action of the Director					
Hydrophytic vegetation present?	Is the sampled	l area within a	wetland?		
Hydric soil present?	lo tilo odilipiot				
Indicators of wetland hydrology present?	If yes, optional	watland site ID			
indicators of wetland hydrology present?	ii yes, optional	welland site ib	·		
Remarks: (Explain alternative procedures here or in a	senarate report)				
Tremarks. (Explain alternative procedures here of in a	separate report.)				
Data point located in a mature forest stand a	djacent to wetland	d WASV068e	e. Area is mapped as R5UBH on	1	
the NWI dataset.					
HYDROLOGY					
		S	econdary Indicators (minimum of two		
Primary Indicators (minimum of one is required; check	all that annly)		equired)		
• •	Stained Leaves (B9)	10	Surface Soil Cracks (B6)		
	c Fauna (B13)	_	Drainage Patterns (B10)		
	eposits (B15)	_	Moss Trim Lines (B16)		
	gen Sulfide Odor (C1)	_	Dry-Season Water Table (C2)		
 -	ed Rhizospheres on Li		Crayfish Burrows (C8)		
Drift Deposits (B3) Roots	•	<u></u>	Saturation Visible on Aerial Imagery		
	nce of Reduced Iron (C	<u> </u>			
	·		(C9) 		
	t Iron Reduction in Till	<u> </u>	Stunted or Stressed Plants (D1)		
Inundation Visible on Aerial Soils (·		Geomorphic Position (D2)		
	Thin Muck Surface (C7)		Shallow Aquitard (D3)		
<u> </u>	Sparsely Vegetated Concave Other (Explain in Remarks)		FAC-Neutral Test (D5)		
Surface (B8)		_	Microtopographic Relief (D4)		
Field Observations:			<u> </u>		
	V Donth (inches)		Indicators of		
Surface water present? Yes No	X Depth (inches):		Indicators of		
Water table present? Yes No	Depth (inches):		wetland		
Saturation present? Yes No	X Depth (inches):		hydrology		
(includes capillary fringe)			present? N		
Describe recorded data (streets gauge, monitoring we	Il garial photos prov	ious inspection) if available:		
Describe recorded data (stream gauge, monitoring we	ii, aeriai priotos, prev	ious inspectior	is), ii avaliable:		
N/A					
IN/A					
Remarks:					
No indicators of wetland hydrology are present; parame	ater is not met				
140 malcators of wetland mydrology are present, parame	ACT IS HOLHICL.				

SOIL NOASV002 **Sampling Point:** Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Features Texture Remarks (Inches) % Loc** Color (moist) Color (moist) Type* 0-6 5YR 3/3 100 fine sandy loam 4-18 5YR 3/4 100 fine sandy loam *Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains *Location: PL=Pore Lining, M=Matrix **Hydric Soil Indicators: Indicators for Problematic Hydric Soils:** 2 cm Muck (A10) (LRR K, L, MLRA 149B Histisol (A1) Polyvalue Below Surface Coast Prairie Redox (A16) (LRR K, L, R) Histic Epipedon (A2) (S8) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) Hydrogen Sulfide (A4) (LRR R, MLRA 149B Dark Surface (S7) (LRR K, L Stratified Layers (A5) Loamy Mucky Mineral (F1) Polyvalue Below Surface (S8) (LRR K, L) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Depleted Below Dark Suface (A11) Thick Dark Surface (A12) Loamy Gleyed Matrix (F2) Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Mucky Mineral (S1) Depleted Matrix (F3) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Sandy Gleyed Matrix (S4) Redox Dark Surface (F6) Sandy Redox (S5) Depleted Dark Surface (F7) Red Parent Material (F21) Stripped Matrix (S6) Redox Depressions (F8) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA Other (Explain in Remarks) 149B) *Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic Restrictive Layer (if observed): Type: Hydric soil present? N Depth (inches): Remarks: No hydric soil indicators present and soil does not meet NTCHS definition of hydric soil; parameter is not met.



Photograph 1: NOASV002, North



Photograph 2: NOASV002, South



Photograph 3: NOASV002, West



Photograph 4: NOASV002, East

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Line 5	City/County:	Ashland	Sampling Date: 10/1	0/2019	
Applicant/Owner: Enbridge		State: WI	Sampling Point:	NOASV003	
Investigator(s): Caitlin Cyrus, Clay Robertson		Section, Townsh	nip, Range: N/A		
Landform (hillslope, terrace, etc.): Drainageway	Lo	cal relief (concave	e, convex, none): Cond	cave	
Slope (%): 0-3% Lat.: 46.310155	Long.: -90.637048	Datum: WGS	S 1984		
Soil Map Unit Name Moquah-Arnheim complex, 0-3	% slopes, frequently floods	ed NWI	Classification: None		
Are climatic/hydrologic conditions of the site typic	al for this time of the year	r? Yes (If no	o, explain in remarks)		
Are vegetation , soil , or hydro	logy significantl	y disturbed?	Are "normal		
Are vegetation , soil , or hydro	logy naturally p	roblematic?	circumstances" prese	ent? Yes	
(If needed, explain any answers in remarks)					
SUMMARY OF FINDINGS					
SOMMAN OF THE HOUSE					
Hydrophytic vegetation present? Y	Is the sample	d area within a w	retland? N		
Hydric soil present?	_				
Indicators of wetland hydrology present?	If yes_optional	wetland site ID:			
	_ " you, optional	Wollding one ib.			
Remarks: (Explain alternative procedures here or	in a separate report.)				
Non-water point taken in low point of upl	and drainageway to Γ	Devils Creek			
Non water point taken in low point of api	and drainageway to E	Jevilo Oreek.			
HYDROLOGY					
		Seco	ondary Indicators (minim	um of two	
Primary Indicators (minimum of one is required; c	heck all that apply)		ired)	ann on two	
·	/ater-Stained Leaves (B9)	•	Surface Soil Cracks (B6)		
	quatic Fauna (B13)		Drainage Patterns (B10)		
	arl Deposits (B15)		Moss Trim Lines (B16)		
	ydrogen Sulfide Odor (C1)		Dry-Season Water Table ((C2)	
	xidized Rhizospheres on L		Crayfish Burrows (C8)	,,	
	oots (C3)		Saturation Visible on Aerial Imagery		
	resence of Reduced Iron ((C9)	g,	
	ecent Iron Reduction in Til		Stunted or Stressed Plant	s (D1)	
			X Geomorphic Position (D2)		
	hin Muck Surface (C7)		Shallow Aquitard (D3)		
	ther (Explain in Remarks)		FAC-Neutral Test (D5)		
Surface (B8)	,		Microtopographic Relief ([04)	
<u> </u>				,	
Field Observations:					
Surface water present? Yes No	X Depth (inches)):	Indicators of		
Water table present? Yes No	X Depth (inches)):	wetland		
Saturation present? Yes No	X Depth (inches)):	hydrology		
(includes capillary fringe)			present? N		
5					
Describe recorded data (stream gauge, monitorin	g well, aerial photos, pre	vious inspections),	, it available:		
N/A					
IV/A					
Remarks:					
Only one secondary indicator of wetland	hydrology present: p	arameter is not	met.		
, , , , , , , , , , , , , , , , , , ,)				

VEGETATION - Use scientific names of plants Sampling Point: NOASV003 50/20 Thresholds Indicator 20% 50% Absolute Dominant Plot Size (10' X 30' Tree Stratum % Cover **Species** Status Tree Stratu WASV063e_W 17 42 Populus tremuloides 63 FAC Sapling/Shrub Stratum 4 9 Acer saccharum 15 FACU Herb Stratum 2 Ν 5 Woody Vine Stratum Betula alleghaniensis 5 Ν FAC **Dominance Test Worksheet** 6 **Number of Dominant** Species that are OBL, 8 FACW, or FAC: (A) **Total Number of Dominant** 9 Species Across all Strata: (B) 83 = Total Cover Percent of Dominant Species that are OBL, Sapling/Shrub Absolute Dominant Indicator FACW, or FAC: 100.00% (A/B) Plot Size (10' X 30' Stratum % Cover Status Species Abies balsamea 15 Υ FAC Prevalence Index Worksheet Fraxinus nigra 3 Ν **FACW** Total % Cover of: 3 **OBL** species x 2 = **FACW** species 6 12 FAC species 88.5 x 3 = 265.5 6 **FACU** species 16.5 x 4 = 66 x 5 = **UPL** species 0 0 8 Column totals 111 (A) 343.5 (B) Prevalence Index = B/A = 3.09 9 18 Total Cover **Hydrophytic Vegetation Indicators:** Indicator Rapid test for hydrophytic vegetation Absolute Dominant Herb Stratum Plot Size (10' X 30') X Dominance test is >50% % Cover **Species** Status Dryopteris intermedia 5 Υ FAC Prevalence index is ≤3.0* Rubus pubescens FACW Morphogical adaptations* (provide 3 Ν FACU Acer saccharum 1 supporting data in Remarks or on a Symphyotrichum lateriflorum FAC 0.5 Ν separate sheet) FACU Problematic hydrophytic vegetation* Mitchella repens 0.5 Ν 6 (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic **Definitions of Vegetation Strata:** 10 11 Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. 13 Sapling/shrub - Woody plants less than 3 in. DBH and 14 greater than 3.28 ft (1 m) tall. 10 = Total Cover Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine Absolute Dominant Indicator Plot Size (5' radius Stratum % Cover Species Status Woody vines - All woody vines greater than 3.28 ft in height. Hydrophytic vegetation 0 = Total Cover present? Remarks: (Include photo numbers here or on a separate sheet) Dominance Test indicator present; parameter is met. Prevalence Index calculated for reference purposes only.

SOIL NOASV003 **Sampling Point:** Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Features Texture Remarks (Inches) % Loc** Color (moist) Color (moist) Type* 7.5YR 3/2 0-12 99 7.5YR 3/4 1 С Μ Silt Loam 12-23 7.5YR 3/2 30 Fine Silt Loam 70 7.5YR 4/2 D Μ *Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains *Location: PL=Pore Lining, M=Matrix **Hydric Soil Indicators: Indicators for Problematic Hydric Soils:** 2 cm Muck (A10) (LRR K, L, MLRA 149B Histisol (A1) Polyvalue Below Surface Coast Prairie Redox (A16) (LRR K, L, R) Histic Epipedon (A2) (S8) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) Hydrogen Sulfide (A4) (LRR R, MLRA 149B Dark Surface (S7) (LRR K, L Stratified Layers (A5) Loamy Mucky Mineral (F1) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Depleted Below Dark Suface (A11) (LRR K, L) Thick Dark Surface (A12) Loamy Gleyed Matrix (F2) Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Mucky Mineral (S1) Depleted Matrix (F3) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Sandy Gleyed Matrix (S4) Redox Dark Surface (F6) Sandy Redox (S5) Depleted Dark Surface (F7) Red Parent Material (F21) Stripped Matrix (S6) Redox Depressions (F8) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA Other (Explain in Remarks) 149B) *Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic Restrictive Layer (if observed): Type: Hydric soil present? N Depth (inches): Remarks: No hydric soil indicators present; parameter is not met. Sporadic unmasked soil with fine sandy grains and earthworms present in sample.



Photograph 1: NOASV003, North



Photograph 2: NOASV003, South

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Line 5	City/County:	Ashland	Sampling Date: 10/11/2019
Applicant/Owner: Enbridge		State: WI	Sampling Point: NOASV004
Investigator(s): Caitlin Cyrus, Clay Robertson		Section, Town	nship, Range: N/A
Landform (hillslope, terrace, etc.): bench	Lo		ave, convex, none): concave
	ong.: -90.680919	Datum: W	
Soil Map Unit Name Gogebic-Metonga-Rock outcrop co	omplex. 6-18% slopes.		WI Classification: R5UBH
Are climatic/hydrologic conditions of the site typical f			no, explain in remarks)
Are vegetation , soil , or hydrolog		ly disturbed?	Are "normal
Are vegetation , soil , or hydrolog		roblematic?	circumstances" present? Yes
(If needed, explain any answers in remarks)	, <u> </u>		' -
(,,,,,			
SUMMARY OF FINDINGS			
Hydrophytic vegetation present? N	Is the sample	d area within a	wetland?
Hydric soil present?	io uno oumpio		
	If was antions	Lwatland sita ID	
Indicators of wetland hydrology present? N	ii yes, opiioria	I wetland site ID	·
Remarks: (Explain alternative procedures here or in	a senarate renort)		
Tremains. (Explain alternative procedures here of in	a separate report.)		
Data point is located on an upland streams	ide bench created	and sustained	d by overbank flow from Krause
Creek.			
HYDROLOGY			
		Se	econdary Indicators (minimum of two
Primary Indicators (minimum of one is required; chec	ck all that annly)		equired)
·	er-Stained Leaves (B9)	10	Surface Soil Cracks (B6)
	atic Fauna (B13)	_	Drainage Patterns (B10)
	Deposits (B15)	_	Moss Trim Lines (B16)
	ogen Sulfide Odor (C1)	_	Dry-Season Water Table (C2)
	•	zed Rhizospheres on Living Crayfish Burrows (C8)	
	s (C3)	<u> </u>	Saturation Visible on Aerial Imagery
	ence of Reduced Iron (_(C9)
· · · · /	ent Iron Reduction in Til		Stunted or Stressed Plants (D1)
	(C6)		Geomorphic Position (D2)
	Muck Surface (C7)	_	Shallow Aquitard (D3)
· , , , , , , , , , , , , , , , , , , ,	r (Explain in Remarks)		FAC-Neutral Test (D5)
Surface (B8)			Microtopographic Relief (D4)
Field Observations:			1
Surface water present? Yes No	X Depth (inches)	١٠	Indicators of
Water table present? Yes No	X Depth (inches)		wetland
Saturation present? Yes No	X Depth (inches))	hydrology
(includes capillary fringe)			present? N
Describe recorded data (stream gauge, monitoring v	vell aerial photos pro-	vious inspection	ns) if available:
Describe recorded data (stream gauge, monitoring v	reli, aeriai priolos, pre	vious irispection	is), ii avallable.
N/A			
1 1// 1			
Remarks:			
No indicators of wetland hydrology are present; parar	neter is not met.		
, 3,			

SOIL NOASV004 **Sampling Point:** Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Features Texture Remarks (Inches) % Loc** Color (moist) Color (moist) Type* 0-6 5YR 3/3 100 fine sandy loam 4-18 5YR 3/4 100 fine sandy loam *Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains *Location: PL=Pore Lining, M=Matrix **Hydric Soil Indicators: Indicators for Problematic Hydric Soils:** 2 cm Muck (A10) (LRR K, L, MLRA 149B Histisol (A1) Polyvalue Below Surface Coast Prairie Redox (A16) (LRR K, L, R) Histic Epipedon (A2) (S8) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) Hydrogen Sulfide (A4) (LRR R, MLRA 149B Dark Surface (S7) (LRR K, L Stratified Layers (A5) Loamy Mucky Mineral (F1) Polyvalue Below Surface (S8) (LRR K, L) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Depleted Below Dark Suface (A11) Thick Dark Surface (A12) Loamy Gleyed Matrix (F2) Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Mucky Mineral (S1) Depleted Matrix (F3) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Sandy Gleyed Matrix (S4) Redox Dark Surface (F6) Sandy Redox (S5) Depleted Dark Surface (F7) Red Parent Material (F21) Stripped Matrix (S6) Redox Depressions (F8) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA Other (Explain in Remarks) 149B) *Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic Restrictive Layer (if observed): Type: Hydric soil present? N Depth (inches): Remarks: No hydric soil indicators present; parameter is not met.



Photograph 1: NOASV004, West



Photograph 2: NOASV004, North

Non-Water Point Photographs Line 5 Wetland Delineation October 11, 2019, Page 2 of 2



Photograph 3: NOASV004, East

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Line 5 Relocati	on Project	City/C	City/County: <u>Iron</u>		Sampling Date: 2019-09-19	
	•					
Investigator(s): NTT/DGL		Section	Section, Township, Range: 046N-001W-15			
Landform (hillslope, terrace, etc.):	<u> </u>	Local rel	Local relief (concave, convex, none): None Slope (%): 0-29			
Subregion (LRR or MLRA): Northc	entral Forests	Lat: 46,470632	Long: -9(0.481767	Datum: WGS84	
Soil Map Unit Name: Wakefield						
Are climatic / hydrologic conditions		•	•			
Are Vegetation, Soil						
Are Vegetation, Soil						
SUMMARY OF FINDINGS -						
COMMINANT OF THE INCOME.					important reatures, etc.	
Hydrophytic Vegetation Present?		No	Is the Sampled Area within a Wetland?	Yes	No <u>/</u>	
Hydric Soil Present? Wetland Hydrology Present?	Yes	No <u>v</u>				
Remarks: (Explain alternative pro			If yes, optional Wetland	a Site ID:		
Mapped NWI feature de			compacted ATV	trail.		
HYDROLOGY						
Wetland Hydrology Indicators:				Secondary Indicat	ors (minimum of two required)	
Primary Indicators (minimum of or	ne is required; c	heck all that apply)		Surface Soil (Cracks (B6)	
Surface Water (A1)	· ·	Water-Stained Leave	es (B9)	Drainage Pat		
High Water Table (A2)		Aquatic Fauna (B13)		Moss Trim Lir		
Saturation (A3)		Marl Deposits (B15)		Dry-Season V	Vater Table (C2)	
Water Marks (B1)		Hydrogen Sulfide Od	or (C1)	Crayfish Burr	ows (C8)	
Sediment Deposits (B2)		Oxidized Rhizospher	es on Living Roots (C3)	Saturation Vis	sible on Aerial Imagery (C9)	
Drift Deposits (B3)		Presence of Reduced			ressed Plants (D1)	
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2)					
Iron Deposits (B5)		Thin Muck Surface (C7) Shallow Aquitard (D3)				
Inundation Visible on Aerial In		Other (Explain in Remarks) Microtopographic Relief (D4)				
Sparsely Vegetated Concave	Surface (B8)			FAC-Neutral	Test (D5)	
Field Observations: Surface Water Present? Yes	os No	✓ Donth (inches):				
		✓ Depth (inches):✓ Depth (inches):				
		✓ Depth (inches):		Hydrology Present	!? Yes No_ <u>✓</u> _	
(includes capillary fringe)					100 <u></u>	
Describe Recorded Data (stream	gauge, monitori	ng well, aerial photos, pre	evious inspections), if ava	ailable:		
Remarks:						
No wetland hydrology i	ndicators v	were observed.				

T. O (D	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30')		Species?		Number of Dominant Species
1. <u>Tsuga canadensis</u>			FACU	That Are OBL, FACW, or FAC:3(A)
2. Acer saccharum			FACU	Total Number of Dominant
3. <u>Pinus strobus</u>				Species Across All Strata:6(B)
4				Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)
5				That Are OBL, FACW, or FAC (AVB)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	60	= Total Cov	/er	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size:)				FACW species0 x 2 =0
1. Populus tremuloides	20	Y	FAC	FAC species 40 x 3 = 120
2. Acer saccharum	10	Y	<u>FACU</u>	FACU species 80 x 4 = 320 UPL species 0 x 5 = 0
3				Column Totals: 120 (A) 440 (B)
4				Column Totals. <u>120</u> (A) <u>440</u> (B)
5				Prevalence Index = B/A =3.67
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
		= Total Cov	/er	2 - Dominance Test is >50%
Herb Stratum (Plot size:5')				3 - Prevalence Index is ≤3.0 ¹
Matteuccia struthiopteris	10	<u>Y</u>	FAC	4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
2. <u>Osmunda claytoniana</u>		Y	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
3. <u>Acer saccharum</u>		Ν	FACU	
4. Lonicera canadensis			FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				
6				Definitions of Vegetation Strata:
7				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11.				of size, and woody plants less than 3.28 ft tall.
12.				Woody vines – All woody vines greater than 3.28 ft in
		= Total Cov	/er	height.
Woody Vine Stratum (Plot size:30')		- 10101 001	701	
1				
2				
3				Hydrophytic Vegetation
4		= Total Cov		Present? Yes No v
Remarks: (Include photo numbers here or on a separate		= Total Cov	/ei	
Sugar maple dominated canopy with a		ground	layer of	ferns.
	•	•	,	

Sampling Point: noira001

SOIL Sampling Point: <u>noira001</u>

Profile Des	cription: (Descr	ibe to the dep	th needed to docur	nent the i	ndicator	or confirm	the absence of indi	cators.)
Depth	Matri			x Feature:		_Loc ²	Tautuma	Demonstra
(inches)	Color (moist		Color (moist)	<u> </u>	Type'	LOC	SICL	Remarks
		3 100						
1-10	<u>5YR 4/3</u>	3 100						
			_					
	-			·				
	-		_					
Type: C=C Hydric Soil		Depletion, RM=	Reduced Matrix, M	S=Masked	Sand Gr	ains.		Pore Lining, M=Matrix. Oblematic Hydric Soils ³ :
Histoso			Polyvalue Belo	w Surface	(S8) (LRI	RR,		10) (LRR K, L, MLRA 149B)
Histic E	pipedon (A2)		MLRA 149B)			Coast Prairie	Redox (A16) (LRR K, L, R)
	istic (A3) en Sulfide (A4)		Thin Dark Surfa Loamy Mucky N					Peat or Peat (S3) (LRR K, L, R) (S7) (LRR K, L)
	d Layers (A5)		Loamy Gleyed			, -)		ow Surface (S8) (LRR K, L)
	d Below Dark Su		Depleted Matrix					face (S9) (LRR K, L)
	ark Surface (A12) Mucky Mineral (S		Redox Dark Su Depleted Dark				-	se Masses (F12) (LRR K, L, R) odplain Soils (F19) (MLRA 149B)
	Gleyed Matrix (S4		Redox Depress		',			(TA6) (MLRA 144A, 145, 149B)
	Redox (S5)						Red Parent M	
	d Matrix (S6) urface (S7) (LRR	R, MLRA 149E	3)				Very Shallow Other (Explain	Dark Surface (TF12) n in Remarks)
			tland hydrology mus	st be prese	ent, unless	disturbed	or problematic.	
	Layer (if observe	ed):						
Type:							Hydric Soil Prese	nt? Yes No
Depth (in Remarks:	ches):						nyunc 3011 Fresei	III: 165 NO
	c soil indica	itors were	observed.					



noira001_E



noira001_W

Project/Site: Line 5 Relo	cation Project	City/0	County: <u>Iron</u>	s	ampling Date: 2019-10-18		
Applicant/Owner: Enbridge	e			State: WI	Sampling Point: noira002		
Investigator(s): BRG/DGL							
					Slope (%): <u>16-25%</u>		
					Datum: WGS84		
					on:		
Are climatic / hydrologic condi	•	·		•			
					sent? Yes <u> </u>		
Are Vegetation, Soil		-					
SUMMARY OF FINDING	- Attach sit	te map snowing san	npling point ic	ocations, transects, ii	mportant reatures, etc.		
Hydrophytic Vegetation Pres	ent? Yes	✓ No	Is the Sampled				
Hydric Soil Present?		No	within a Wetlan	nd? Yes	No <u> </u>		
Wetland Hydrology Present?		No	If yes, optional V	Wetland Site ID:			
Remarks: (Explain alternative The area is an upla	re procedures here on nd in a \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	or in a separate report.)	mewhat stee	en slone, and the V	VWI becomes a		
-	•						
wetland outside of t	ne survey are	ea where the topo	grapny becc	imes depressional.			
HYDROLOGY							
Wetland Hydrology Indicat	ors:			Secondary Indicator	s (minimum of two required)		
Primary Indicators (minimum	of one is required; of	check all that apply)		Surface Soil Cra	acks (B6)		
Surface Water (A1)		Water-Stained Leave	es (B9)	Drainage Patter	rns (B10)		
High Water Table (A2)		Aquatic Fauna (B13)	1	Moss Trim Line	Moss Trim Lines (B16)		
Saturation (A3)		Marl Deposits (B15)		Dry-Season Wa	ater Table (C2)		
Water Marks (B1)		Hydrogen Sulfide Oc		Crayfish Burrow			
Sediment Deposits (B2)			_	s (C3) Saturation Visib	= : : :		
Drift Deposits (B3)		Presence of Reduce		Stunted or Stres			
Algal Mat or Crust (B4)		Recent Iron Reduction					
Iron Deposits (B5)	rial Imagen (D7)	Thin Muck Surface (Shallow Aquitar			
Inundation Visible on Ae Sparsely Vegetated Con		Other (Explain in Re	marks)	Microtopograph			
Field Observations:	icave Surface (Bo)			FAC-Neutral Te	:St (D3)		
Surface Water Present?	Yes No	✓ Depth (inches):					
Water Table Present?		✓ Depth (inches):					
Saturation Present?	·	Depth (inches):		etland Hydrology Present?	Yes No ✓		
(includes capillary fringe)					. ss		
Describe Recorded Data (str	eam gauge, monitor	ring well, aerial photos, pre	evious inspections), if available:			
Remarks:	عماميرط لمصمله	مام مام مام مساسم					
No indicators of we	liano nyorolog	gy were observed	•				

T. O (D	Absolute		t Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30')			Status	Number of Dominant Species
1. Abies balsamea			FAC	That Are OBL, FACW, or FAC:5 (A)
2. Acer rubrum				Total Number of Dominant
3. <u>Tilia americana</u>				Species Across All Strata:9 (B)
4			- ——	Percent of Dominant Species
5			 	That Are OBL, FACW, or FAC:55.56 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	55.0	= Total Co	ver	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size:)				FACW species9 x 2 =18
1. Corylus cornuta	10.0	Y	<u>FACU</u>	FAC species <u>65</u> x 3 = <u>195</u>
2. <u>Populus tremuloides</u>	5.0	Y	FAC	FACU species <u>80</u> x 4 = <u>320</u>
3. <u>Acer rubrum</u>	5.0	Y	FAC	UPL species
4				Column Totals:154 (A)533 (B)
5				Prevalence Index = B/A = 3.46
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
		= Total Co	N/Ar	2 - Dominance Test is >50%
Herb Stratum (Plot size:5')		- 10tai 00	,vci	3 - Prevalence Index is ≤3.0 ¹
1. Mitchella repens	30.0	Υ	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Carex pedunculata		Y	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Pyrola elliptica			FACU	
4. Solidago flexicaulis		Y	FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. <u>Pteridium aquilinum</u>		N	FACU	
6. <u>Carex gracillima</u>		N	FACU	Definitions of Vegetation Strata:
7. Rubus pubescens		N	FACW	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
•			FACW	at breast height (DBH), regardless of height.
8. Fraxinus nigra				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9. <u>Equisetum sylvaticum</u>	2.0	<u>N</u>	FACW	
				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11				
12.		-	 	Woody vines – All woody vines greater than 3.28 ft in height.
	<u> 79.0 </u>	= Total Co	ver	
Woody Vine Stratum (Plot size: 30')				
1			-	
2				
3			<u> </u>	Hydrophytic
4	_			Vegetation Present? Yes <u>✓</u> No
	0.0	= Total Co	ver	
Remarks: (Include photo numbers here or on a separate				
The area is dominated by facultative tre	ees and	upiana	vegetat	ion.

Sampling Point: noira002

SOIL Sampling Point: <u>noira002</u>

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth Matrix	0/		x Features		1002	Toyturo	Romarko
Depth (inches) Color (moist)		Redo. Color (moist)	x Features	Type ¹	Loc ²	Texture	Remarks
	· ——						
¹ Type: C=Concentration, D=Dep Hydric Soil Indicators:	letion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ains.		Pore Lining, M=Matrix. roblematic Hydric Soils ³ :
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, N	/ILRA 149E tion and we	•	ce (S9) (L Mineral (F1) Matrix (F2) (F3) fface (F6) Surface (F ions (F8)	RR R, ML) (LRR K,	.RA 149B) L)	2 cm Muck (Coast Prairie 5 cm Mucky Dark Surface Polyvalue Be Thin Dark Surface Iron-Mangan Piedmont Flore Mesic Spodion Red Parent I Very Shallow Other (Explain	A10) (LRR K, L, MLRA 149B) Redox (A16) (LRR K, L, R) Peat or Peat (S3) (LRR K, L, R) Redox (S7) (LRR K, L) Relow Surface (S8) (LRR K, L) Rese Masses (F12) (LRR K, L, R) Redodplain Soils (F19) (MLRA 149B) Redox (TA6) (MLRA 144A, 145, 149B) Material (F21) Redox (TF12) Value of Death (TF1
Restrictive Layer (if observed):							
Туре:							
Depth (inches):						Hydric Soil Prese	ent? Yes No <u>/</u>
Remarks: Soils could not be sam assumed non-hydric b							



noira002_NE



noira002_SW

Project/Site: Line 5 Reloc	ation Project	City/	County: Iron	1	_ Sampling Date: <u>2019-09-23</u>
Applicant/Owner: Enbridge)			State: WI	Sampling Point: noirb001
					-32
Landform (hillslope, terrace, etc	:.): <u>Rise</u>	Local re	elief (concave,	convex, none): None	Slope (%): <u>0-2%</u>
					Datum: WGS84
					fication:
Are climatic / hydrologic condition				-	
					present? Yes No
Are Vegetation, Soil					
					s, important features, etc.
SOWIMANT OF FINDING	3 - Attach site	map snowing sai	 	<u> </u>	s, important leatures, etc.
Hydrophytic Vegetation Prese		No <u></u>	Is the Samp		No <u>~</u>
Hydric Soil Present?		No			
Wetland Hydrology Present? Remarks: (Explain alternative		No	If yes, optio	nal Wetland Site ID:	
the corridor, a remna managed for Norway		it is now pooling	water. Ar	ea wnere the samp	ole was recorded is
HYDROLOGY					
Wetland Hydrology Indicator	rs:			Secondary India	cators (minimum of two required)
Primary Indicators (minimum o				Surface So	il Cracks (B6)
Surface Water (A1)		Water-Stained Leave		Drainage P	
High Water Table (A2)		Aquatic Fauna (B13)		Moss Trim	
Saturation (A3) Water Marks (B1)		Marl Deposits (B15)Hydrogen Sulfide Od		· · · · · · · · · · · · · · · · · · ·	n Water Table (C2)
Sediment Deposits (B2)					Visible on Aerial Imagery (C9)
Drift Deposits (B3)		Presence of Reduce	_		Stressed Plants (D1)
Algal Mat or Crust (B4)		Recent Iron Reducti			
Iron Deposits (B5)		Thin Muck Surface (Shallow Aq	
Inundation Visible on Aeri	al Imagery (B7)	Other (Explain in Re	marks)	Microtopog	raphic Relief (D4)
Sparsely Vegetated Conc	ave Surface (B8)			FAC-Neutra	al Test (D5)
Field Observations:					
Surface Water Present?		Depth (inches):			
Water Table Present?		Depth (inches):		Matley d Hudrala au Drass	outO Van Na ./
Saturation Present? (includes capillary fringe)		Depth (inches):			ent? Yes No <u>/</u>
Describe Recorded Data (stream	am gauge, monitorir	ng well, aerial photos, pr	evious inspect	ions), if available:	
Remarks:					
No primary or secon	dary indicator	rs of wetland hyd	drology.		

Tree Christian (Diet sine) 201	Absolute		t Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30')			Status	Number of Dominant Species
1. <u>Picea abies</u>				That Are OBL, FACW, or FAC:1 (A)
2. Acer saccharum				Total Number of Dominant
3				Species Across All Strata:3 (B)
4				Percent of Dominant Species That Are OBL, FACW, or FAC: 33,33 (A/B)
5				That Are OBL, FACW, or FAC: 33.33 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	85.0	= Total Co	ver	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size:)				FACW species 10 x 2 = 20
1			<u> </u>	FAC species <u>25</u> x 3 = <u>75</u>
2		-		FACU species x 4 = 428 UPL species 0 x 5 = 0
3				Column Totals: 142 (A) 523 (B)
4.				Column rotals. 172 (A) 323 (B)
5				Prevalence Index = B/A = 3.68
6				Hydrophytic Vegetation Indicators:
7.				1 - Rapid Test for Hydrophytic Vegetation
	0.0		ver	2 - Dominance Test is >50%
Herb Stratum (Plot size:5')				3 - Prevalence Index is ≤3.0¹
1. Carex pedunculata	25.0	Y	FAC	4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
2. Prunus serotina	15.0	Y	<u>FACU</u>	Problematic Hydrophytic Vegetation ¹ (Explain)
3. <u>Equisetum pratense</u>	10.0	N	FACW	1
4. Triosteum aurantiacum		N	NI	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. Carex gracillima		N	FACU	Definitions of Vegetation Strata:
6. Pyrola elliptica			FACU	_
7				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8				
9				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12				Woody vines – All woody vines greater than 3.28 ft in
12.		= Total Co		height.
Woody Vine Stratum (Plot size:30')		= Total Co	ivei	
1				
2				
3				Hydrophytic Vegetation
4				Present? Yes No
Remarks: (Include photo numbers here or on a separate		= Total Co	ver	
Canopy of Norway spruce. The ground graminoids.		ithin the	e vicinity	of the sample area is dominated by

Sampling Point: noirb001

SOIL Sampling Point: <u>noirb001</u>

Profile Description:	Describe	to the dept	h needed to docum	ent the indi	cator or confire	n the absence of	of indicator	rs.)	
Depth (inches) Color	Matrix (moist)	%	Redox Color (moist)	Features T	ype ¹ Loc ²	Texture		Remarks	
	3/2	100				L			
12-18 7.5YF									
12 10 1.011	0,0		-			<u></u>			
									
		. <u> </u>							
		<u> </u>							
		· ——— -							
1Tunas C. Canaantrati	D Don	letion DM	Dadwaad Matrix MC	Mosked Co	nd Craina	21 continu	DI Doro I	ining M Mot	wi.,
¹ Type: C=Concentrati Hydric Soil Indicator		ietion, Rivi=	Reduced Matrix, MS:	=iviaskeu sa	na Grains.			_ining, M=Mat natic Hydric \$	
Histosol (A1)		_	Polyvalue Below	Surface (S8) (LRR R,			LRR K, L, ML	
Histic Epipedon (A	(2)		MLRA 149B)	- (CO) (LDD	D MI DA 440E			x (A16) (LRR	
Black Histic (A3)Hydrogen Sulfide	(A4)	-	Thin Dark Surfact Loamy Mucky Mi				ucky Peat d urface (S7)	or Peat (S3) (L (LRR K, L)	.KK N, L, K)
Stratified Layers (A5)	_	Loamy Gleyed M	latrix (F2)		Polyval	ue Below S	urface (S8) (L	
Depleted Below D Thick Dark Surface		e (A11) _	Depleted Matrix (Redox Dark Surf					(S9) (LRR K, asses (F12) (
Sandy Mucky Min		<u>-</u> _	Depleted Dark S				-		(MLRA 149B)
Sandy Gleyed Ma		-	Redox Depression	ons (F8)					A, 145, 149B)
Sandy Redox (S5 Stripped Matrix (S							rent Materia	al (F21) Surface (TF1	2)
Stripped Matrix (3		/ILRA 149B))				Explain in R		2)
3									
³ Indicators of hydrophy Restrictive Layer (if o	_		land hydrology must	be present,	uniess disturbed	or problematic.			
Type:									
Depth (inches):						Hydric Soil I	Present?	Yes	No <u>~</u>
Remarks:									
No redox featur	es obs	erved.							



noirb001_N



noirb001_S

Project/Site: Line 5 Reloc	ation Project	t City/0	County: <u>Iron</u>		Sampling Date: 2019-09-24
Applicant/Owner: Enbridge)			State: WI	_ Sampling Point: noirb002
Investigator(s): SAM/MAL		Section Section	ion, Township, Ran	nge: <u>046N-001W-3</u>	2
					Slope (%): <u>0-2%</u>
					Datum: WGS84
					ation:
Are climatic / hydrologic condition		•	•	•	
					resent? Yes 🗸 No
_					
Are Vegetation, Soil					
SUMMARY OF FINDING	S – Attach sit	te map showing sar	npling point lo	ocations, transects,	important features, etc.
Hydrophytic Vegetation Prese Hydric Soil Present?	Yes	No	Is the Sampled within a Wetlan	d? Yes	_ No <u> </u>
Wetland Hydrology Present? Remarks: (Explain alternative		No	If yes, optional W	Vetland Site ID:	
understory. HYDROLOGY					
Wetland Hydrology Indicato	rs:			Secondary Indicat	ors (minimum of two required)
Primary Indicators (minimum o		check all that apply)		·	· · · · · · · · · · · · · · · · · · ·
Surface Water (A1)		Water-Stained Leave	es (B9)	Drainage Patt	erns (B10)
High Water Table (A2)		Aquatic Fauna (B13))	Moss Trim Lir	nes (B16)
Saturation (A3)		Marl Deposits (B15)		Dry-Season V	Vater Table (C2)
Water Marks (B1)		Hydrogen Sulfide Oc		Crayfish Burro	
Sediment Deposits (B2)			_		ible on Aerial Imagery (C9)
Drift Deposits (B3)		Presence of Reduce	` '	Stunted or Str	
Algal Mat or Crust (B4)		Recent Iron Reduction			
Iron Deposits (B5) Inundation Visible on Aeri	ial Imagan (D7)	Thin Muck Surface (Shallow Aquit	
Sparsely Vegetated Conc	• • • •	Other (Explain in Re	marks)	Microtopograp FAC-Neutral ⁻	
Field Observations:	ave duriace (Bo)			1 AO Neditai	rest (bo)
Surface Water Present?	Yes No	✓ Depth (inches):			
Water Table Present?		✓ Depth (inches):			
Saturation Present?	Yes No _	✓ Depth (inches):	Wet	tland Hydrology Present	? Yes No <u>/</u>
(includes capillary fringe) Describe Recorded Data (stre	am gauge monitor	ring well serial photos pre	avious inspections)	if available:	
Describe Recorded Data (site	am gauge, monitor	ing wen, aenai priotos, pri	evious inspections)	, ii availabic.	
No primary and seco	ondary indica	ators of wetland h	ydrology. Are	ea rather flat and	level.

EGETATION – Use scientific names of plants.				Sampling Point: noirb002
Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?		Dominance Test worksheet:
1. <i>Picea abies</i>	25.0	Y	<u>FACU</u>	Number of Dominant Species That Are OBL, FACW, or FAC: 3.0 (A)
2				Total Number of Dominant Species Across All Strata: 4.0 (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0 (A/B)
6.				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cov	/er	OBL species $0.0 \times 1 = 0.0$
Sapling/Shrub Stratum (Plot size:)				FACW species 0.0 x 2 = 0.0
1. <u>Populus tremuloides</u>	50.0	<u>Y</u>	FAC	FAC species <u>105.0</u> x 3 = <u>315.0</u>
2. <u>Prunus serotina</u>			<u>FACU</u>	FACU species 60.0 x 4 = 240.0
3. <i>Rhus typhina</i>			_NL_	UPL species $0.0 x = 0.0$ Column Totals: $165.0 (A) 555.0 (B)$
4				
5				Prevalence Index = B/A = 3.4
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	60.0	= Total Cov	/er	2 - Dominance Test is >50%
Herb Stratum (Plot size:)				3 - Prevalence Index is ≤3.0 ¹
1. <u>Rubus idaeus</u>	25.0	<u>Y</u>	FAC	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. <u>Carex pedunculata</u>	25.0	Y	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
3. <u>Carex gracillima</u>	10.0	N	<u>FACU</u>	
4. <u>Pteridium aquilinum</u>		N	<u>FACU</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. <u>Symphyotrichum lateriflorum</u>	5.0	N	FAC	Definitions of Vegetation Strata:
6. <i>Fragaria virginiana</i>	5.0	N	<u>FACU</u>	-
7. <u>Fallopia cilinodis</u>	2.0	N	NI_	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12				Woody vines – All woody vines greater than 3.28 ft in
	80.0	= Total Cov	/er	height.
Woody Vine Stratum (Plot size:)				
1				
2				
3				Hydrophytic
4				Vegetation Present?
		= Total Cov	/er	
Remarks: (Include photo numbers here or on a separate s		O W 00 2 - 1		tive cover Evictics covers as is
Area lacking any resemblance to a wetl composed of species tolerant to disturb			vegeta	uve cover. Existing coverage is

SOIL Sampling Point: <u>noirb002</u>

Profile Desc	cription: (Describe	to the dept	h needed to docun	nent the i	ndicator	or confirm	the absence of in	dicators.)
Depth	Matrix			x Features		1 2 2	Tautuus	Damada
(inches) 0-12	Color (moist) 10YR 2/2	100	Color (moist)	<u> </u>	Type'	Loc ²	Texture	Remarks
	7.5YR 3/3			· 			_	
12 10	7.011	100						_
								_
								_
								_
				· 				
¹ Type: C=C	oncentration, D=Dep	etion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ains.	² Location: PL:	=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indicators for P	Problematic Hydric Soils ³ :
Histosol Histic Er	(A1) pipedon (A2)	·-	Polyvalue Belov MLRA 149B)		(S8) (LRF	RR,		(A10) (LRR K, L, MLRA 149B) e Redox (A16) (LRR K, L, R)
Black Hi	stic (A3)	· -	Thin Dark Surfa				5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
	en Sulfide (A4) d Layers (A5)		Loamy Mucky N Loamy Gleyed I			, L)		e (S7) (LRR K, L) elow Surface (S8) (LRR K, L)
Deplete	d Below Dark Surface	e (A11)	Depleted Matrix	(F3)	,		Thin Dark S	urface (S9) (LRR K, L)
	ark Surface (A12) Nucky Mineral (S1)	-	Redox Dark Sulphy Depleted Dark S		7)		-	nese Masses (F12) (LRR K, L, R) loodplain Soils (F19) (MLRA 149B)
-	Gleyed Matrix (S4)	. -	Redox Depress		')			ic (TA6) (MLRA 144A, 145, 149B)
-	Redox (S5)							Material (F21)
	l Matrix (S6) rface (S7) (LRR R, M	ILRA 149B)					w Dark Surface (TF12) ain in Remarks)
	f hydrophytic vegetat		land hydrology mus	t be prese	ent, unless	disturbed	or problematic.	
Restrictive Type:	Layer (if observed):							
· · ·	ches):						Hydric Soil Pres	ent? Yes No 🗸
Remarks:								
No hydri	c soil indicator	s nor re	dox features.					



noirb002_N



noirb002_W

Project/Site: Line 5 Relocation Project	City/County: <u> r(</u>	on	Sampling Date: 2019-09-26
Applicant/Owner: Enbridge			
Investigator(s): SAM/MAL	Section, Townsh	nip, Range: <u>045N-001W-(</u>)5
Landform (hillslope, terrace, etc.): Dip			
Subregion (LRR or MLRA): Northcentral Forests La	at: 46.412946	Long: -90.521271	Datum: WGS84
Soil Map Unit Name: Chabeneau-Annalake			
Are climatic / hydrologic conditions on the site typical	• • •	•	
Are Vegetation, Soil, or Hydrology			
	-		
Are Vegetation, Soil, or Hydrology			
SUMMARY OF FINDINGS – Attach site	map showing sampling po	oint locations, transects	, important features, etc.
Hydrophytic Vegetation Present? Yes	No Is the Sa	mpled Area	
	No v within a	Wetland? Yes	No <u> </u>
Wetland Hydrology Present? Yes	No If yes, op	tional Wetland Site ID:	
Remarks: (Explain alternative procedures here or in	n a separate report.)	a tha north Facture o	Janes porth into a
Transition off of a built-up trail lead	•	o the north. Feature s	siopes north into a
basin. Data point collected for due	unigence purposes.		
HYDROLOGY			
Wetland Hydrology Indicators:			ators (minimum of two required)
Primary Indicators (minimum of one is required; che	****		
	_ Water-Stained Leaves (B9)	Drainage Pa	
	_ Aquatic Fauna (B13)	Moss Trim L	
	_ Marl Deposits (B15)	·	Water Table (C2)
	Hydrogen Sulfide Odor (C1)Oxidized Rhizospheres on Livin	Crayfish Bur	isible on Aerial Imagery (C9)
	Presence of Reduced Iron (C4)	= : :	tressed Plants (D1)
1 — · · · ·	Recent Iron Reduction in Tilled		Position (D2)
1 — · · · · —	Thin Muck Surface (C7)	Shallow Aqu	
	_ Other (Explain in Remarks)		aphic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	_ Other (Explain in Remarks)	FAC-Neutral	
Field Observations:			1031 (20)
Surface Water Present? Yes No ✔	Depth (inches):		
	Depth (inches):		
	Depth (inches):		nt? Yes No <u>/</u>
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring	well aerial photos previous inspe	actions) if available:	
Describe Recorded Data (Stream gauge, monitoring	well, aerial priotos, previous ilispe	ections), ii available.	
Remarks: No primary or secondary indicators	of watland hydrology		
Two primary or secondary indicators	o or welland hydrology.		

Tree Stratum (Plot size: 30') \$\(\) Cover Species? Status Thumber of Daminant Species That Are OBL, FACW, or FAC: 4,0 (A)	Tree Stratum (Plataire: 201	Absolute	Dominant		Dominance Test worksheet:
Total Number of Dominant Species Across All Strates All Species That And CBL, FACW, or FAC: Total Species					Number of Dominant Species
Species Across All Strata: 9,0 (B)					That Are OBL, FACW, or FAC: 4.0 (A)
Percent of Dominant Species That Are OBL, FACW, or FAC:					
That Are OBL, FACW, or FAC: determined Acceptance A					
Prevalence Index worksheet: Total 'Scover of: Multiply by:					
Total % Cover of: Multiply by:					
Description Companies Description De					
Sapling/Shrub Stratum (Plot size: 15') 1. Alnus incana 75.0 Y FACW FA	1				
1. Alnus incana	Continue/Ohmuh Chapture (Diet sine) 15'		= Total Cov	/er	
Solution		75 O	V	EACW.	
3					-
4					UPL species x 5 =0.0
Prevalence Index = B/A = 2.6 Hydrophytic Vegetation Indicators:					Column Totals: <u>135.0</u> (A) <u>355.0</u> (B)
Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation					Prevalence Index = B/A =
1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is \$3.0° 4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) 2 - Dominance Test is >50% 3 - Prevalence Index is \$3.0° 4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) 2 - Dominance Test is >50% 3 - Prevalence Index is \$3.0° 4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) 2 - Dominance Test is >50% 3 - Prevalence Index is \$3.0° 4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) 2 - Dominance Test is >50% 3 - Prevalence Index is \$3.0° 4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) 2 - Dominance Test is >50% 3 - Prevalence Index is \$3.0° 4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) 2 - Dominance Test is >50% 3 - Prevalence Index is \$3.0° 4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) 2 - Dominance Test is >50% 3 - Prevalence Index is \$3.0° 4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) 2 - Dominance Test is >50% 3 - Prevalence Index is \$3.0° 4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) 2 - Dominance Test is \$3.0° 3 - Prevalence Index is \$3.0° 3 - Prevalence In					
Bo.0 = Total Cover					
Herb Stratum (Plot size: 5') 1. Mitchella repens 25.0	1.		- Total Co	·or	
1. Mitchella repens 25.0 Y FACU 2. Cornus alternifolia 5.0 Y FACU 3. Carex gracillima 5.0 Y FACU 4. Thalictrum dasycarpum 5.0 Y FACW 5. Acer rubrum 5.0 Y FACW 6. Doellingeria umbellata 5.0 Y FACW 7. Osmunda regalis 5.0 Y FACU 9.	Herb Stratum (Plot size: 5')	00.0	= Total Co	/EI	3 - Prevalence Index is ≤3.0¹
2. Cornus alternifolia 5.0 Y FACU 3. Carex gracillima 5.0 Y FACU 4. Thalictrum dasycarpum 5.0 Y FACW 5. Acer rubrum 5.0 Y FACW 6. Doellingeria umbellata 7. Osmunda regalis 8. Pteridium aquilinum 9. Thalictrum davillinum 10. Saplingshrub — Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. 11. Splingshrub — Woody vines greater than 3.28 ft in height. Woody Vine Stratum (Plot size: 30') 1		25.0	Υ	FACU	
3. Carex gracillima 4. Thalictrum dasycarpum 5.0 Y FACU 5.0 Y FACW 5.0 Y FACW 5.0 Y FACW 5.0 Y FACW 6. Doellingeria umbellata 7. Osmunda regalis 8. Pteridium aquilinum 9. FACU 10. Herb - All herbaceous (non-woody) plants, regardless of size, and woody vines greater than 3.28 ft tall. 11. Woody Vine Stratum (Plot size: 30') 1. Stratum (Plot size: 30') 1. Commarks: (Include photo numbers here or on a separate sheet.)	•		Y		. ,
4. Thalictrum dasycarpum 5. 0 Y FACW 5. Acer rubrum 5. 0 Y FACW 6. Doellingeria umbellata 7. Osmunda regalis 8. Pteridium aquilinum 9.			Y		
5. Acer rubrum 5.0 Y FAC 6. Doellingeria umbellata 7. Osmunda regalis 8. Pteridium aquilinum 9. S.0 Y FACU 10. Herb - All herbaceous (non-woody) plants, regardless of size, and woody vines greater than 3.28 ft all. 12. Solution Stratum (Plot size: 30') 1. Solution Stra			Y		
6. Doellingeria umbellata 7. Osmunda regalis 8. Pteridium aquilinum 9. Solution Stratum (Plot size: 30') 1			Y		
7. Osmunda regalis 8. Pteridium aquilinum 9.			Y		Definitions of Vegetation Strata:
8. Pteridium aquilinum 9. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height. Woody Vine Stratum (Plot size: 30') 1	•		Y		
9. and greater than or equal to 3.28 ft (1 m) tall. 10. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. 12. Woody Vines – All woody vines greater than 3.28 ft in height. Woody Vine Stratum (Plot size: 30') 1					
10					
of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height. State					Harh — All herhaceous (non-woody) plants regardless
Woody Vine Stratum (Plot size: 30') 1					
					Woody vines – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:			= Total Co	/er	height.
1	Woody Vine Stratum (Plot size: 30')				
2					
3					
4					Hydrophytic
					Vegetation
Remarks: (Include photo numbers here or on a separate sheet.)				/er	Present? Yes V No No
Alder-dominated fringe with a ground layer of facultative and facultative upland species.		sheet.)			
			acultativ	e and f	acultative upland species.

Sampling Point: noirb003

SOIL Sampling Point: <u>noirb003</u>

	cription: (Describe t	o the de	oth needed				or confirm	the absence	of indicators.)
Depth (inches)	Matrix Color (moist)	%	Color (n		x Features %	Type ¹	Loc ²	Texture	Remarks
0-4	10YR 4/4	90	7.5YR	5/8	_10_	C	_M_	SIL	Prominent redox
4-12	10YR 5/4	90							
12-18	10YR 6/4	95	7.5YR	5/8	_5_	C	_M_	SIL	Prominent redox
		-							
			-						
1Type: C-C	oncentration, D=Depl	etion RM	-Reduced N	Natriy M9	 S-Maskad	Sand Gr		² l ocation	n: PL=Pore Lining, M=Matrix.
Hydric Soil		etion, ixiv	=reduced i	riatiix, ivic	<u>J-IVIASKEU</u>	Sand Of	airis.		s for Problematic Hydric Soils ³ :
Histosol			-		v Surface	(S8) (LRI	RR,		Muck (A10) (LRR K, L, MLRA 149B)
	oipedon (A2) stic (A3)			RA 149B) ark Surfa		.RR R, M	LRA 149B)		t Prairie Redox (A16) (LRR K, L, R) Mucky Peat or Peat (S3) (LRR K, L, R)
	en Sulfide (A4)				fineral (F1		, L)		Surface (S7) (LRR K, L)
	d Layers (A5) d Below Dark Surface	(A11)	-	ed Matrix	Matrix (F2) (F3))			alue Below Surface (S8) (LRR K, L) Dark Surface (S9) (LRR K, L)
Thick Dark Surface (A12) Redox Dark Surface (F6)					Iron-M	Manganese Masses (F12) (LRR K, L, R)			
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Gleyed Matrix (S4) Redox Depressions (F8)							nont Floodplain Soils (F19) (MLRA 149B) Spodic (TA6) (MLRA 144A, 145, 149B)		
Sandy Redox (S5)						Red F	Parent Material (F21)		
Stripped Matrix (S6)							Shallow Dark Surface (TF12)		
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)									
	f hydrophytic vegetati Layer (if observed):	on and w	etland hydro	logy mus	t be prese	ent, unless	s disturbed	or problemati	C.
Type:	Layer (II Observed).								
	ches):							Hydric Soi	I Present? Yes No
Remarks: Soils do not meet any of the hydric soil indicators.									
Soils do	not meet any o	of the I	nydric so	oil indi	cators.				



noirb003_E



noirb003_N

Project/Site: Line 5 Relocation Project	City/Cou	unty: <u>Iron</u>		Sampling Date: 2019-09-	<u>17</u>			
Applicant/Owner: Enbridge								
Investigator(s): BRG/JSW	Section	, Township, Range: 0	46N-001W-2	8				
Landform (hillslope, terrace, etc.): Talf					6			
Subregion (LRR or MLRA): Northcentral Forests Lat:								
Soil Map Unit Name: Gogebic, very stony-Pence, ver					<u> </u>			
Are climatic / hydrologic conditions on the site typical for								
Are Vegetation, Soil, or Hydrology								
Are Vegetation, Soil, or Hydrology			explain any answer					
SUMMARY OF FINDINGS – Attach site m	nap showing samp	ling point locatio	ns, transects,	important features, etc	; <u>.</u>			
Hydrophytic Vegetation Present? Yes	_ 110	s the Sampled Area						
Hydric Soil Present? Yes	No v	within a Wetland?	Yes	No <u></u>				
Wetland Hydrology Present? Yes Remarks: (Explain alternative procedures here or in a		f yes, optional Wetland	Site ID:					
The area is a disturbed forest that have present for the area to be considered.		•	ast. Insumce	ent wetiand indicators	3			
HYDROLOGY								
Wetland Hydrology Indicators:			Secondary Indicat	tors (minimum of two required)	٦			
Primary Indicators (minimum of one is required; check	k all that apply)		Surface Soil Cracks (B6)					
	(B9)	Drainage Pati						
					Moss Trim Lines (B16)			
					Dry-Season Water Table (C2) Crayfish Burrows (C8)			
	Water Marks (B1) Hydrogen Sulfide Odor (C1)							
	_ Sediment Deposits (B2) Oxidized Rhizospheres on Living _ Drift Deposits (B3) Presence of Reduced Iron (C4)				Roots (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)			
Sparsely Vegetated Concave Surface (B8)			Microtopograp					
Field Observations:								
	Depth (inches):							
	_ Depth (inches):							
Saturation Present? Yes No No	Depth (inches):	Wetland H	lydrology Present	t? Yes No				
Describe Recorded Data (stream gauge, monitoring v	well, aerial photos, previo	ous inspections), if ava	ilable:					
Remarks:					4			
No indicators of wetland hydrology v	were observed. \$	Some shallow c	lepressions l	have been created by	v			
logging equipment, but this does no			•	•	'			
		•	- 37					

Tree Stratum (Plot size:)	Absolute		Indicator	Dominance Test worksheet:
1. Acer saccharum		Species?		Number of Dominant Species
2. Acer rubrum				That Are OBL, FACW, or FAC: (A)
				Total Number of Dominant Species Across All Strata: 5 (B)
3				\ , ,
4				Percent of Dominant Species That Are OBL, FACW, or FAC: 40.00 (A/B)
5				10100 (13)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
0 1 0 10 10 1 10 1 1	30.0	= Total Co	ver	OBL species
Sapling/Shrub Stratum (Plot size: 15')	40.0	V	E4011	FAC species x 2 =
1. Acer saccharum				FACU species 35 x 4 = 140
2. <u>Betula alleghaniensis</u>				UPL species0 x 5 =0
3				Column Totals: (A) (B)
4				Prevalence Index = B/A = 3.67
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
	15	= Total Co	ver	3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size: 5') 1. Acer saccharum	5.0	Υ	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. <u>Osmunda claytoniana</u>			FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
3.				
4				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				
6				Definitions of Vegetation Strata:
7				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12.				Woody vines – All woody vines greater than 3.28 ft in
		= Total Co	ver	height.
Woody Vine Stratum (Plot size: 30')				
1				
2				
3				Hydrophytic
4				Vegetation
		= Total Co	ver	Present? Yes No
Remarks: (Include photo numbers here or on a separate	sheet.)			
The area is a heavily thinned logging s	ite with f	facultati	ve mesi	c forest vegetation.

Sampling Point: noirc001

Sampling Point: noirc001

Color (moist) YR 5/2 YR 4/4 YR 4/4 Antration, D=Deplementation,		Color (moist) -Reduced Matrix, N - Polyvalue Bele MLRA 1496 Thin Dark Sur Loamy Mucky Loamy Gleyed Depleted Matrix Redox Dark S Depleted Dark Redox Depres	MS=Masked ow Surface B) fface (S9) (L Mineral (F1 d Matrix (F2) rix (F3) surface (F6) c Surface (F6)	Sand Gra (S8) (LRR .RR R, ML) (LRR K,	ins.	Indicators for 2 cm Mc 2 cm Mc 2 cm Mc 5 cm Mc 2 cm Mc 2 cm Polyvalu Thin Da 1 cm Iron-Mai	or Problem uck (A10) in drairie Reducky Peat urface (S7) ue Below Serk Surface urganese M	(LRR K, L, I lox (A16) (LI or Peat (S3) (LRR K, L)	Matrix. ic Soils ³ : MLRA 149B) RR K, L, R)) (LRR K, L, R) (LRR K, L) K, L)
ontration, D=Deplecators: Idon (A2) (A3) Ilfide (A4) I/ers (A5) Ilow Dark Surface Surface (A12) I/y Mineral (S1) I/y Mineral (S1) I/y Mineral (S4) I/y (S5)	100	=Reduced Matrix, N Polyvalue Bele	MS=Masked ow Surface B) fface (S9) (L Mineral (F1 d Matrix (F2) rix (F3) surface (F6) c Surface (F6)	Sand Gra (S8) (LRR .RR R, ML) (LRR K,	ins.	2Location: Indicators fo 2 cm Mu Coast P 5 cm Mu Dark Su Polyvalu Thin Da Iron-Mai	or Problem uck (A10) in drairie Reducky Peat urface (S7) ue Below Serk Surface urganese M	matic Hydr (LRR K, L, I lox (A16) (LI or Peat (S3) (LRR K, L) Surface (S8) e (S9) (LRR	ic Soils ³ : MLRA 149B) RR K, L, R)) (LRR K, L, R) ((LRR K, L) K, L)
entration, D=Deplecators: Idon (A2) (A3) Ilfide (A4) Vers (A5) Ilow Dark Surface Surface (A12) Vy Mineral (S1) Vy Mineral (S4) Vx (S5)	letion, RM=	=Reduced Matrix, M Polyvalue Beloom MLRA 1498 Thin Dark Sur Loamy Mucky Loamy Gleyed Depleted Matri Redox Dark S Depleted Dark	MS=Masked ow Surface B) fface (S9) (L Mineral (F1 d Matrix (F2) rix (F3) surface (F6) c Surface (F6)	Sand Gra (S8) (LRR .RR R, ML) (LRR K,	R,	² Location: Indicators fo 2 cm Mo Coast P 5 cm Mo Dark Su Polyvalu Thin Da Iron-Mai	or Problem uck (A10) in drairie Reducky Peat urface (S7) ue Below Serk Surface urganese M	matic Hydr (LRR K, L, I lox (A16) (LI or Peat (S3) (LRR K, L) Surface (S8) e (S9) (LRR	ic Soils ³ : MLRA 149B) RR K, L, R)) (LRR K, L, R) ((LRR K, L) K, L)
cators: don (A2) (A3) ulfide (A4) vers (A5) dow Dark Surface surface (A12) y Mineral (S1) dd Matrix (S4) x (S5)		Polyvalue Bela MLRA 1498 Thin Dark Sur Loamy Mucky Loamy Gleyed Depleted Matr Redox Dark S Depleted Dark	ow Surface B) fface (S9) (L Mineral (F1) Matrix (F2) rix (F3) surface (F6) Surface (F6)	(S8) (LRR .RR R, ML) (LRR K,	R,	Indicators for 2 cm Mc 2 cm Mc 2 cm Mc 5 cm Mc 2 cm Mc 2 cm Polyvalu Thin Da 1 cm Iron-Mai	or Problem uck (A10) in drairie Reducky Peat urface (S7) ue Below Serk Surface urganese M	matic Hydr (LRR K, L, I lox (A16) (LI or Peat (S3) (LRR K, L) Surface (S8) e (S9) (LRR	ic Soils ³ : MLRA 149B) RR K, L, R)) (LRR K, L, R) ((LRR K, L) K, L)
cators: don (A2) (A3) ulfide (A4) vers (A5) dow Dark Surface surface (A12) y Mineral (S1) dd Matrix (S4) x (S5)		Polyvalue Bela MLRA 1498 Thin Dark Sur Loamy Mucky Loamy Gleyed Depleted Matr Redox Dark S Depleted Dark	ow Surface B) fface (S9) (L Mineral (F1) Matrix (F2) rix (F3) surface (F6) Surface (F6)	(S8) (LRR .RR R, ML) (LRR K,	R,	Indicators for 2 cm Mc 2 cm Mc 2 cm Mc 5 cm Mc 2 cm Mc 2 cm Polyvalu Thin Da 1 cm Iron-Mai	or Problem uck (A10) in drairie Reducky Peat urface (S7) ue Below Serk Surface urganese M	matic Hydr (LRR K, L, I lox (A16) (LI or Peat (S3) (LRR K, L) Surface (S8) e (S9) (LRR	ic Soils ³ : MLRA 149B) RR K, L, R)) (LRR K, L, R) ((LRR K, L) K, L)
cators: don (A2) (A3) ulfide (A4) vers (A5) dow Dark Surface surface (A12) y Mineral (S1) dd Matrix (S4) x (S5)		Polyvalue Bela MLRA 1498 Thin Dark Sur Loamy Mucky Loamy Gleyed Depleted Matr Redox Dark S Depleted Dark	ow Surface B) fface (S9) (L Mineral (F1) Matrix (F2) rix (F3) surface (F6) Surface (F6)	(S8) (LRR .RR R, ML) (LRR K,	R,	Indicators for 2 cm Mc 2 cm Mc 2 cm Mc 5 cm Mc 2 cm Mc 2 cm Polyvalu Thin Da 1 cm Iron-Mai	or Problem uck (A10) in drairie Reducky Peat urface (S7) ue Below Serk Surface urganese M	matic Hydr (LRR K, L, I lox (A16) (LI or Peat (S3) (LRR K, L) Surface (S8) e (S9) (LRR	ic Soils ³ : MLRA 149B) RR K, L, R)) (LRR K, L, R) ((LRR K, L) K, L)
cators: don (A2) (A3) ulfide (A4) vers (A5) dow Dark Surface surface (A12) y Mineral (S1) dd Matrix (S4) x (S5)		Polyvalue Bela MLRA 1498 Thin Dark Sur Loamy Mucky Loamy Gleyed Depleted Matr Redox Dark S Depleted Dark	ow Surface B) fface (S9) (L Mineral (F1) Matrix (F2) rix (F3) surface (F6) Surface (F6)	(S8) (LRR .RR R, ML) (LRR K,	R,	Indicators for 2 cm Mc 2 cm Mc 2 cm Mc 5 cm Mc 2 cm Mc 2 cm Polyvalu Thin Da 1 cm Iron-Mai	or Problem uck (A10) in drairie Reducky Peat urface (S7) ue Below Serk Surface urganese M	matic Hydr (LRR K, L, I lox (A16) (LI or Peat (S3) (LRR K, L) Surface (S8) e (S9) (LRR	ic Soils ³ : MLRA 149B) RR K, L, R)) (LRR K, L, R) ((LRR K, L) K, L)
don (A2) (A3) Ilfide (A4) Ivers (A5) Iow Dark Surface Iurface (A12) Ivers (A12) Ivers (A14) Ivers (A15) Ivers (A15	e (A11)	MLRA 1498 Thin Dark Sur Loamy Mucky Loamy Gleyed Depleted Matr Redox Dark S Depleted Dark	B) face (S9) (L Mineral (F1 Matrix (F2) rix (F3) Gurface (F6) & Surface (F6)	.RR R, ML) (LRR K,	.RA 149B)	Coast P 5 cm Mu Dark Su Polyvalu Thin Da	rairie Red ucky Peat urface (S7) ue Below S rk Surface nganese N	lox (A16) (LI or Peat (S3) (LRR K, L) Surface (S8) e (S9) (LRR	RR K, L, R)) (LRR K, L, R) (LRR K, L) K, L)
e (S7) (LRR R, M	ILRA 149B	3)	ssions (F8)			Red Par Very Sh	podic (TA) rent Materi	6) (MLRA 1 rial (F21) k Surface (T	19) (MLRA 149E 44A, 145, 149B
		tland hydrology mu	ust be prese	ent, unless	disturbed	or problematic.			
r (if observed):									
						Undria Cail D	Dracant?	Vaa	No
):						Hydric Soil P	resent?	res	No <u> </u>
on malcator	3 Wele	observed.							
)	(if observed):	(if observed):	(if observed):	(if observed):	(if observed):	(if observed):	(if observed): Hydric Soil F	(if observed): Hydric Soil Present?	(if observed): Hydric Soil Present? Yes



noirc001_N



noirc001_W

Project/Site: Line 5 Relocation	on Proiect	City/C	County: Iron		Sampling Date: 2019-09-21	
Applicant/Owner: Enbridge	•					
Investigator(s): BRG/JSW					· -	
Landform (hillslope, terrace, etc.): <u>T</u>						
Subregion (LRR or MLRA): Northce						
Soil Map Unit Name: Chabeneau						
		•	•	•		
Are climatic / hydrologic conditions of		-				
Are Vegetation, Soil,						
Are Vegetation, Soil,	, or Hydrology	naturally problema	atic? (If r	needed, explain any answe	ers in Remarks.)	
SUMMARY OF FINDINGS –	Attach site m	nap showing sam	npling point	locations, transects	s, important features, etc.	
Hydrophytic Vegetation Present?	Yes	No	Is the Sample	ed Area		
Hydric Soil Present?		No <u>/</u>	within a Wetla		No <u> </u>	
Wetland Hydrology Present?			If yes, optiona	I Wetland Site ID:		
Remarks: (Explain alternative prod	cedures here or in a	a separate report.)				
The area is a wet-mesic	•	•				
surrounding mesic fores	st, but does r	not meet suffici	ent criteria	to be classified a	s a wetland.	
HYDROLOGY						
Wetland Hydrology Indicators:				Secondary Indica	ators (minimum of two required)	
Primary Indicators (minimum of one	e is required; chec	k all that apply)		Surface Soil		
Surface Water (A1)	-	Water-Stained Leaves		Drainage Patterns (B10)		
High Water Table (A2)		Aquatic Fauna (B13)		Moss Trim L		
Saturation (A3)		Marl Deposits (B15)			Water Table (C2)	
Water Marks (B1)					rows (C8)	
Sediment Deposits (B2)					isible on Aerial Imagery (C9)	
Drift Deposits (B3)		Presence of Reduced	d Iron (C4)	Stunted or S	Stressed Plants (D1)	
Algal Mat or Crust (B4)						
Iron Deposits (B5)		Thin Muck Surface (C		Shallow Aquitard (D3)		
Inundation Visible on Aerial Im		Other (Explain in Rem	narks)		aphic Relief (D4)	
Sparsely Vegetated Concave S	Surface (B8)			FAC-Neutra	l Test (D5)	
Field Observations:	. No	Death (askes)				
		Depth (inches):				
		Depth (inches):		lation diliculario accidente	-12 Van Na ./	
(includes capillary fringe)		Depth (inches):			nt? Yes No <u>/</u>	
Describe Recorded Data (stream g	jauge, monitoring v	well, aerial photos, prev	vious inspection	ns), if available:		
Remarks:						
No indicators of wetland	d hydrology v	were observed.	. Microtopo	ography is somew	hat variable, possibly	
due to logging machine			•		, ,	
30 13 13 33	- ,	. •				

T. O (D	Absolute		Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30')		Species?		Number of Dominant Species
1. Acer saccharum				That Are OBL, FACW, or FAC:4 (A)
2. <u>Betula alleghaniensis</u>				Total Number of Dominant
3. <u>Tilia americana</u>				Species Across All Strata:9 (B)
4				Percent of Dominant Species That Are OBL, FACW, or FAC: 44.44 (A/B)
5				That Are OBL, FACW, or FAC. 44.44 (AVB)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	70	= Total Co	ver	OBL species 2 x 1 = 2
Sapling/Shrub Stratum (Plot size:)				FACW species x 2 = 34
1. <u>Tilia americana</u>	20.0	Y	<u>FACU</u>	FACULTURE 39 x 3 = 117
2. Fraxinus nigra	10.0	Y	<u>FACW</u>	FACU species 65 x 4 = 260 UPL species 0 x 5 = 0
3				Column Totals: 123 (A) 413 (B)
4				(A) <u>415</u>
5				Prevalence Index = B/A = 3.36
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	30.0	= Total Co	ver	2 - Dominance Test is >50%
Herb Stratum (Plot size:5')				3 - Prevalence Index is ≤3.0 ¹
1. <u>Carex pensylvanica</u>	5.0	Y	_NL_	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. <u>Carex intumescens</u>		Υ	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Dryopteris intermedia		Y	FAC	
4. Oryzopsis asperifolia		Y	NI	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. Tilia americana	<i>E</i> 0	Y	FACU	
6. Athyrium angustum		N	FAC	Definitions of Vegetation Strata:
7. Carex pedunculata		N	FAC	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8. Carex crinita		N	OBL	
9. Fraxinus nigra		N	FACW	Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
			171011	
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11				Woody vines – All woody vines greater than 3.28 ft in
12		T-1-10-		height.
201		= Total Co	ver	
Woody Vine Stratum (Plot size:)				
1				
2				
3				Hydrophytic Vegetation
4				Present? Yes No V
		= Total Co	ver	
Remarks: (Include photo numbers here or on a separate The area is a wet-mesic forest with a se		at spars	e herba	ceous laver.
		at opaio	0 1.01.00	oscas layell

Sampling Point: noirc002